A SOCIOLOGICAL HISTORY OF STOKE-ON-TRENT

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of

the City of

STOKE-ON-TRENT

BY

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WITH 233 ILLUSTRATIONS
by—and from the author's collection.

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DEDICATED

TO

THE LORD MAYOR, ALDERMEN, COUNCILLORS,
CITIZENS OF STOKE-ON-TRENT
and to all who have an interest in the
city and its social history.

*

ODE TO THE POTTERIES

The landscape of the Potteries
  Was once of meadows green,
But the smoke and grime of ages
  Has changed that pleasant scene.

The Industrial Revolution
  Won riches for the few,
But the Potter in his poverty
  Not always gained his due.

Today that landscape's blackened,
  But poverty's passed away—
So who would not say the Potter
  Is happier today ?

PREFACE

Lord Mayor's Parlour,
Stoke-on-Trent

It is now over a century since the last major history of North Staffordshire was presented by John Ward, in 1842. The far-reaching changes and tremendous developments which have taken place in the interim have made a new survey long overdue and it is therefore a great pleasure for me to introduce Mr. Warrillow's " Sociological History of Stoke-on-Trent."

The publication of such an important work in the present year is most opportune, as it coincides with the Jubilee Celebrations marking the fifty years which have passed since the federation in 1910, of the six towns which comprise the City of Stoke-on-Trent.

Those of us on the City Council who have been privileged to serve Stoke-on-Trent for many years were aware that Mr. Warrillow had been seeking and compiling a vast amount of material for more than twenty-five years, and we were very happy to encourage him in writing and illustrating this very fine volume.

The author has intimated that he has sufficient data available to write a general history of the City and we all hope it will prove possible, in the near future, to meet the very heavy cost of such a publication.

It is a matter of great personal satisfaction to me to be asked to supply this short preface, as my connection with the City of Stoke-on-Trent and North Staffordshire is not only that of Alderman of the City Council and Magistrate; my own ancestry has deep roots in the area and I can therefore claim an intimate knowledge of its history. Accordingly, I feel well qualified to commend this book as a reliable work of reference and also as a fascinating story.

I think it will be generally agreed that Mr. Warrillow has presented his material with great skill. Perhaps even more important is his great affection for his subject and his strong sense of civic pride; attributes which combine to make him a capable and distinguished historian of our City.

Harold Clowes

LORD MAYOR.

20th January, 1960.

Alderman Harold Clowes, O.B.E., J.P.

Lord Mayor of the City of Stoke-on-Trent

1959-60

VIS UNITA FORTIOR

AUTHOR'S NOTE

This historical work, as with " History of Etruria " is a " labour of love." It is the result of a prolonged search into often obscure sources of information and illustration, a task made less arduous with the devoted help of my wife.

It was started with the realisation that no monetary profit would accrue, rather the reverse, but the usefulness of the work seemed to me to make the task worthwhile. The project was encouraged by a grant from the City Council.

It had been my intention to write and illustrate both a sociological history and a general history of the city, but the cost made this impossible.

For the sake of some economy it has been necessary to reduce the size of the illustrations and group them rather than to reduce their number, but these will stand enlargement with a powerful reading glass. Considerable information, as distinct from that in the book script, is to be found in the text to the illustrations.

If the book brings pleasure and a greater understanding of our city to Potteries people and to all who are interested, wherever they may be, then this will be my reward.

E. J. D. Warrillow

Hill Cote,
Lancaster Road,
Newcastle,
Staffordshire,
and Etruria,
Stoke-on-Trent.
January 18th, 1960.

Published to Commemorate the Golden Jubilee, in March 1960, of the Federation in 1910 of the Six Towns of Stoke-on-Trent.

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To these authors—and others—we should be everlastingly grateful. It is their immortal right that they should be remembered and acknowledged.

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CHAPTER I.

The Land Formation of Stoke-on-Trent

THE dawn and morning of the world has been pictured for all by far seeing geologists and scientists. From their great studies it is possible for the uninitiated to understand something of the formation of the earth.

The Villages and Towns, which later became the City of Stoke-on-Trent and the industries, may be said to owe their existence to the geological changes that have taken place on earth over a period of time of about two hundred and thirty million years.

To the works of these geologists one must turn to understand something of the beginnings of the City of Stoke-on-Trent.

The early existence of the 'Potteries' depended almost entirely on the fact that clay and coal were to be found in close proximity throughout the major portion of the district.

To the present day this fact still governs to a very large degree the main industry of the City, that of making earthenware, porcelain and china. This, despite the use of gas, electricity and oil as modern fuels for firing the ware, is still basically due to the abundant supply of an eminently suitable type of coal, described as a 'long flame' coal, which is mined in the Potteries coal-field and to the clay which is still used in the manufacture of 'saggars,' drain-pipes, chimney-pots, sanitary pipes, roofing tiles, bricks and other coarse types of ware.

What local picture can we then present during those incredibly distant years?

In Stoke-on-Trent as in other parts of the country the landscape, where undisturbed to any great degree by natural phenomena and man, presents, in general, a relief similar to that at the beginning of the Glacial Epoch.

Denudation at and after this last period by ice, running water, heat, wind and rain has worn away the softer rock formations resulting in prominent ridges of hard sandstone like the straight high ridge between Milton Station and Norton-in-the-Moors formed by what is called the Ten Feet Rock.

Older than the Coal Measures is the Millstone Grit Series whose lower part is of shales with a few sandstone bands. Its upper part is dominated by a number of thick gritstones (over fifteen feet thick) separated by shales. These grits form the high 'edges,' such as Brown Edge and Baddeley Edge on the east and Congleton Edge on the west.

It is difficult, as one stands on any of the local ridges overlooking the coalfield, to imagine to any extent the vastness and bleakness of the scene during the Ice Age with its vast stretches of imperceptibly moving ice.

Millions of years earlier, in what we call the Triassic period, the scene was very different. The landscape would have been that of a scorching desert of monotonous sand. Underneath this lay the Coal Measures whose mud, sand and lush vegetation had already been converted into shale, sandstone and coal buckled into folds running roughly north-south.

Since the Triassic period the sandstone cover has been gradually weathered away to expose our Coal Measure rocks at the surface.

In our quarrying and mining we sometimes find, in some places, fossil trees. A remarkable local example of this flora of Coal Measures time was unearthed in June 1867 at the bottom of a marl pit at Joiners Square, Hanley, belonging to Messrs. Hampton.

The fossilised tree broken into a number of pieces and standing at a distance of about sixty feet from the surface, had a circumference of seven feet three inches. On the exterior of the trunk were large patches of soft coal probably representing the bark now the thickness of a quarter of an inch. A feature of the tree was the different degrees of hardness of the materials which filled the interior, most of which was a hard clay, divided by several horizontal bands of a soft blue shale mixed with carbonaceous matter.

The clay contained numerous fossil plants. Several similar specimens had also been found when cutting the Leek branch of the North Staffordshire Railway at Fenton Low. One tree had been complete with its roots.

In North Staffordshire and in particular in the heart of the present City when the Coal Measures were forming, the area was a low marshy expanse of dense woodland in process of rapid growth. The trees were between forty and sixty feet in height and beneath them was a luxuriant growth of ferns and grasses specimens of which are still found in the shales in which they were buried, then soft mud.

Finally the trees fell to the forest floor and in decaying formed a mould on which other generations of trees grew.

A slow and intermittent sinking of the land produced beds of coal followed by a succession of beds of shale and sandstone, then coal again.

This periodical sinking of the land permitted the sea to enter and in whose muds (later to become shales) there accumulated the remains of a varied marine life. Fossils found in the lower or earlier measures usually indicate these marine conditions while the fresh water types of fossil prevail in the upper measures. The beds which overlie the Coal Measures in this district are of clay and mainly sands and gravel of Glacial origin.

Later, on the land, with rapid denudation, rivers brought great masses of mud and sand to silt up the shallow sea, and these sands and muds were, eventually to form the sandstone ridges and shale valleys of the present landscape.

During these vast periods of time the rich vegetation returned from time to time eventually to become submerged again and it is found that the coal seams are separated in layers by hundreds of feet of clays, shales and sandstones.

Today in the Potteries Coalfield, which takes the outline of a triangle, saucer-shaped in depth and covering over one hundred square miles, we may see proof of these changes and periods.

It is uncanny to think of the City of Stoke-on-Trent becoming part of a sea from time to time but the fact remains that the Potteries Coalfield has long been recognised as an unrivalled field for the study of carboniferous fresh water fish and marine fossils, some shales containing shells of all descriptions, others fossilised fishes, while others abound in plants.

The work many years ago of Mr. William Molyneux, Dr. Robert Garner and Dr. Wheelton Hind (the two latter were residents of Stoke), testify in a great measure to this phenomena in their painstaking investigations and descriptions of these interesting specimens. At the present time the writings and works of Mr. John Myers, B.Sc., F.G.S., F.R.G.S., the distinguished geologist, of Wolstanton, should be studied by all who wish to pursue the subject further.

In addition to these fascinating fossils there have been found in rocks of more recent time the remains of several animals—a reminder that there was animal and other life between the periods of an extraordinary kind.

Dr. Garner records that " the bones and teeth of the Rhinoceros and Elephant have been occasionally found in Staffordshire, probably in a diluvial gravel, at Trentham and other places." Nearer at Etruria, in 1877, were found the skull and horn cores of the *Bos primigenius* or *Urus*.

These are described as of the Pleistocene period (the time of the Great Ice Age). They were more often to be found in the peat bogs of England and Scotland and were considered to be the most important wild animals living in this country during the pre-historic period and ancestors of the large breeds of domestic cattle.

The remains unearthed, when alterations were taking place at Etruria Station, were of great size, the horn cores being almost thirty-one inches long with a circumference at the base of sixteen inches. These were taken to the Stoke Free Library but their present whereabouts are not known.

The ice which covered North Staffordshire was mostly Irish Sea ice which, arising in the mountains of Scotland and the Lake District swept through the Irish Sea and eventually reached this district. This has been traced from the type of boulder which was carried with it.

Many of these boulders are of course still to be seen. In 1885 one of these stones weighing about two tons was placed on a plinth by Stoke Free Library. It was brought from Berry Hill. Another was at this time to be found in a field below Shelton Rectory. Yet another at Eaves Lane, Bucknall. Also a boulder was found in the cellar of a house in Seaford Street, Shelton, which was found to be too large to remove when the house was built and is, presumably, still there. Tunstall Park also contains a good example. Many of the boulders are composed of green stone or porphyry, whilst others are of granite. All have travelled a great distance. It is now known that water could not have carried the stones but only could they have been carried by the ice which on melting left the boulders behind.

Not only did this slowly moving grinding mass of ice and stone bring with it boulders but also vast quantities of clay which we know as Boulder Clay. Yellow in colour it covers several areas in the district. This Boulder Clay is not thick enough to be of commercial value. More important are the shales, clays and marls of the Coal Measures. Towards the end of Coal Measures time conditions began to change almost to desert. It was at this time that the red Etruria Marl was formed. These marls are to be found on the slopes of the land that despite the lack of trees is still known as the Etruria and Bradwell Woods. Under these 'woods' the Etruria Marls stretch north and south through the Potteries and also roughly south from Chesterton. In places they approach seven hundred feet in thickness and are of red and blue-grey

in colour. They are used mainly in the manufacture of roofing and floor tiles. Another valuable clay, just below some coal seams is known as fire clay.

In this geological structure are also sandstone, pebble beds and sand, all deposited towards the end of the coal formation periods.

It was the Coal Measures clays that were largely used by the very early potters. These clays were fired by the quick bright-burning long flame variety coal, found near to the clays. These conditions were ideal for these pioneers who were to be found making their wares in the villages and later towns which occupied the high ground from Tunstall to Lane End (now Longton). Such are the vital reasons for the early existence of the Staffordshire potter.

Before the Great Ice Age began the present Trent river system was already established. The ice which eventually covered the region caused only minor changes in the river courses. The Trent head waters are formed by the surface drainings and springs issuing from the Millstone Grit north of Knypersley on Biddulph Moor.

The Boulder Clay left behind by the ice caused a few changes in the courses of the rivers of North Staffordshire. South of Stoke the Trent swings round the western side of the hill at Hanford. Formerly it ran through the valley on the eastern side of the hill. Blocking of this eastern valley with glacial drift caused the river to change its course. This blocked valley is followed today by both railway and canal.

In 1890 Dr. Wheelton Hind gave a description of discovering signs of a pre-glacial lake or river at Shelton. From examinations of excavations made at that period to lay a sewer in one of the new streets at right angles to Stoke Road, Dr. Hind found leaves and moss and some very well-marked river gravel. In the Cauldon Road, about four hundred yards to the south of the excavations mentioned there had been found river sand with a current bedding well marked, showing that there had been an active stream there. A cutting made for the purpose of laying sewers down to Hanley sewage farm proved that Boulder Clay existed very close to the River Trent and this tended to show that the Trent Valley was far older than the Trent itself, because nearly the whole of the land between the Trent and Stoke Road was covered in by glacial clay, which had not been worn by the present river.

The valley must have been excavated by the old river years before the Glacial Epoch and the old bed had been covered in. In addition Dr. Hind thought that the barrier to the lake had been at a place opposite Primrose Hill, which could be seen looking up the valley from Hanford Bridge.

CHAPTER 2.

Early History

The advent of the Great Ice Age with its glaciers and intense cold, is thought to have almost exterminated the Dawn Man and only probably a few survived in South Wales and in southern areas of the British Isles, although the climate would here be very cold.

The Paleolithic (early stone age) man or cave man migrated into Britain with the coming of a warmer climate at the end of the Ice Age joining the few survivors in England. Cave drawings and remains have been discovered in Paviland Cave in Wales but it seems unlikely that these early beings, mostly fishermen and hunters, reached the land of the "Potteries." With the coming of the New Stone Age (Neolithic), about ten thousand years ago, a more civilized state prevailed in Britain. It is thought that these people reached this island on rafts drifting across the shallow water from Europe.

These early humans appear to have settled in Southern England where more evidence has been found. Stonehenge was then an important centre of their activities.

These folk constituted a considerable advance in evolution and the way of living. Pottery making, Spinning and Weaving were their main industries. Here again it would appear unlikely that they trekked inland as far as Staffordshire, but they were perhaps the first "Potters."

With the invasion of the Gaels (a branch of the Celtic folk who came from the Caspian shores about 2000 B.C.) the Neolithic people became largely subserviant to their new masters. The Gaels discovered tin and copper which they bartered from Cornwall to Gaul. The Gauls in turn were overwhelmed by Britons who crossed the Channel in their high-decked galleys (*Circa* 600 B.C.).

Still more civilized, these Britons had some system of government with Druids as a governing body. Their main introduction was probably the use of iron for making implements of battle.

At war on the Continent with the Romans, they were eventually attacked in Britain by the Romans themselves under Caesar in 55 and 54 B.C.

In a campaign under Emperor Claudius in A.D. 43 they were finally overcome in the Midlands and in the south though not completely in the north and west of Britain. This was the beginning of a golden age for Britain which had much bearing on the "Potteries," the people of which, became quite civilized. Unfortunately they became so dependent on the Romans that this "civilized" period ended in tragic helplessness on the departure of the Romans who left to defend Rome itself from the barbarians. This helplessness was seen at a later date when the Saxons invaded Britain.

Examples of early British pottery (*Circa* 400 B.C.) which had been hardened by fire have been found. Cinerary Urns (small urns used for the ashes of cremation) varied from nine to about eighteen inches in height and were often decorated with

a " herring-bone " design. These might be said to be earliest examples of the Staffordshire Potter, although it must be remembered that these urns were found in many parts of the country. One such urn found at Trentham contained burnt bones. Another was unearthed at Shelton when the foundations for the early Etruria-Shelton Bar Ironworks were being excavated. It is regrettable that this one was not preserved.

In addition, drinking vessels and domestic objects of the same period have been found in fragments. These pot-workings of the Early Britons were not confined to the " Potteries " and examples have been found in various parts of Staffordshire and Derbyshire and a great many years were to elapse before the land on which the City of Stoke-on-Trent stands really became the Potteries.

The Newcastle, Chesterton and Wolstanton area has some evidence of Roman occupation, particularly as regards to roads although, it is said, that a Roman Road had been laid through Stoke, then a swamp bound region, while much of the road now running through Trentham and Newcastle would be under the Lyme and the Trent streams.

John Ward in his History of the Borough of Stoke-upon-Trent, published in 1842, declares that the " Foundation Charter of the Abbey at Hulton," dated 1228, contains sufficient description which shows that the road persued a course from Blyth Marsh —Meir—Normacot, via Sutherland Road, past the Church in a direct line to the Manor House at Little Fenton; passing Cauldon Place and Shelton Hall, a little to the West of Foul Hay House, via a Hollow-way to Wolstanton Marsh possibly to Porthill by Bradwell Lane, past Bradwell Hall and so to the Roman Station at Chesterton.

In this work it is the intention of the writer, so far as is possible, to confine at all periods the history to the present City Boundary. In this way one can present a better picture of the Roman occupation and local pottery making. Until recent years there has been much doubt as to whether the Romans made pottery in this district. A map of Roman Britain, published in 1928 by the Ordinance Survey Department shows no indication in North Staffordshire. In recent years valuable finds have been made. Mr. T. Pape, M.A., F.S.A., a distinguished North Staffordshire Historian and Archaeologist records that, " Roman finds—a denarius (ancient Roman silver coin) of Nero and some Sherds (fragments) of pottery—were made at Trent Vale Brick and Tile Works, in April 1929." In November of that year, Mr. G. J. V. Bemrose, Curator of the Hanley Museum, took the coins to the British Museum. Most of them were found to be about the period of the middle of the first century A.D. The last coin to be found was indentified as a British copy of a Dupondius, struck by Claudius I., in honour of Antonia.

The most interesting part of the report by the authorities at the British Museum was the fact that these reports dated the Roman occupation from near the end of the first century A.D. until well on into the second century.

Numerous small objects have been found at various times.

It is, however, the finds of the last few years by Mr. G. J. V. Bemrose and Mr. A. R. Mountford that may be considered quite important in their relation to local history. A Kiln has been unearthed in an excellent state of preservation on approximately the same site as the earlier finds at Trent Vale and it may be considered as at least one

of the best in England. Numerous fragments have been found. Most careful and painstaking reconstruction has resulted in some unique examples of Roman work. The fine Roman Lamps are fascinating. Apparently the Roman Pottery Kiln had been destroyed by fire and it was found that the original domed shaped cover of the Kiln had collapsed, sealing in position the last firing of ware. Its date is ascribed as 70 A.D. and is one of the earliest sites in Staffordshire.

An early pottery kiln, with fragments of pottery indentified as medieval, was unearthed by boys and a schoolmaster, Mr. A. E. Lawton, of the Sneyd Green County Primary School, on a piece of open land at Sneyd Green, close to the site of the old road from Abbey Hulton to the Abbey's Grange at Rushton—now known as the Grange at Cobridge.

Mr. Bemrose has stated that some of the fragments may be as early as late 14th Century. The boys had been given an 18th Century map, on which were shown three potteries. They had attended lectures on pottery history at the City Museum and in the course of their digging they made this remarkable find. Later the boys continued their excavations under the guidance of Mr. Bemrose and Mr. Mountford. The excavations being carried out by Mr. Bemrose and Mr. Mountford near the stables at Longton Hall (the hall was demolished in 1939) is likely to provide some valuable exhibits in the quest for examples of the soft porcelain made there by William Littler (*Circa* 1752).

The compilation of the Domesday Survey began in 1085 at the command of King William and presented in 1086 as the Domesday Book gives one an early glimpse of the land which comprises the site of the Towns of the Potteries and presents perhaps the earliest domestic picture of the area.

In 1086 more than half of the land in Staffordshire was woodland and was thinly populated. One then can imagine the beautiful setting of the " Six Towns " at this period.

Much of the land was described 'as waste' as at Fenton, Biddulph and Bucknall. *Stocke*—Stoke, is only mentioned in connection with the ancient Church. This was part of the land of Robert De Stafford who held land in Caverswall—and 'half the Church of Stoke with half a carucate of land.'

Alwardus Tenet Fentone—'Alward holds Fenton the land of the Kings Thane' (a Thane being an independent free-holder). Here at Fenton there was one Virgate of land. There was land for three ploughs but this was described as 'waste.'

Robertus Tenet In Barcadeslim—'Robert holds in Burslem the third part of one hide.' 'Alward held it, and was a free-man. There is land for two ploughs.'

There is one Villein, (a Villein being a Farmer not free, but bound to the Lord of the Manor and the land)—and four Bordars (Cottagers whose duty it was to supply the Lord with provisions)—with one plough.

There are two acres of Elder Woods. It is worth ten shillings. Ulviet held it.'

In Scelfitone—' In Shelton is one Virgate of land. Alviet held it. There is land for two ploughs.'

In the case of Penkhull, one of the oldest parts of the present City, *Rex Tenet Pinchetel*—'The King holds Penkhull.' 'Earl Algar held it. There are two hides with their dependencies. There is land for eleven ploughs. In demesne, (the demesne

being the portion of a manor reserved for the Lord's own use)—there are two, and (there are) 17 Villeins and 6 Bordars, with 8 ploughs.

There (are) two acres of meadow. The wood is 1 league long and 2 furlongs broad. It is worth 6 pounds.'

From this the importance of Penkhull at this period will be realized and also why in later years and in 1485, Cliffe Ville, now Cliff Vale between Penkhull and Etruria, was still known as the King's Park fringed by Witton or Winton Wood.

Other parts of the 'Potteries' were also 'held' and these will be mentioned when dealing with each particular area.

Perhaps one might say that the true Staffordshire Potter is a descendant of the Anglo-Saxon. 'He is Saxon in name, in speech, in physique, and in temperament,' declares one author. The racial distinctiveness is dying away but the Saxon type can be repeatedly detected any time in a walk through the streets of the Potteries. The rubicund face, the solid figure, the reddish auburn or sandy hair and the stolid demeanour still survive. He is fond of practical jokes, horseplay and sport.

It is thought that it was the Normans who introduced the word Potter. Early evidence of the North Staffordshire Pottery Craft is found in the Tunstall, Manor Court Rolls, when in 1348, William the Pottere gave the Lord of the Manor sixpence to obtain a license to make earthenware pots, and in 1363, Thomas the Throgher is amerced (punished by a fine) for a default at Chatterley.

In 1368 Robert le Potter gives the Lord 12d. for a license to get earth for making pots until the following Michaelmas. In 1448 Richard Adams and William his brother are amerced at the Tunstall Manor Court for digging clay in the common road between Sneyd and Burslem ! Their grandchildren were Master Potters and land owners.

About the year 1370, the Lords of the Newcastle and Tunstall Courts granted licenses, 'to pick or mine coal.' Underwood was bought to make charcoal and as iron mines are mentioned, smelting must have been carried on as well as potting. At Hulton Abbey, founded in 1223, the monks had made encaustic tiles and probably pottery. After the Dissolution in 1539 the pottery was continued by the Adams' family aided by the monks. Richard Adams had acquired early in the 15th Century 32 acres in the Vill of Sneyd from Hugh Telwrygt (Tile Wright).

In an Inquisition dated 1307-8, William Adams is recorded as holding about 15 acres at 11d. a year. Of ancient lineage there are still to be found the factories of the Adams family at Tunstall, one of the many famous names in the world of the Potter.

To tell the story of such men and their works we must traverse in the coming chapters, 'The Lane,'—once a pleasant narrow winding ribbon of rough road that joined the straggling towns of the Staffordshire Potteries, over a distance of some eight to ten miles; through valleys over ridges and hills—the lane with its primitive pot-works forming the nucleus of the setting for the great industrial romance of the City of Stoke-on-Trent, from Tunstall to Lane End.

For information see overleaf

1. Walking, still the cheapest form of personal communication. Indeed, in 1686 Doctor Plot recorded that the principal sale of the coarse pottery was to the poor crate-men, who carried the ware on their backs all over the country. This study, at Snow Hill, Shelton, was made by an unknown photographic artist about 1882.

2. Beautiful photographic study by Mr. W. J. B. Blake taken at the Blurton end of Longton Hall Road, about 1895. It shows the ancient ford and Longton Hall.

3. Another picture by Mr. Blake showing the ford at Forsbrook, near Blythe Bridge.

4. Longton Hall Road, 1955, photographed from the same viewpoint as illustration No 2.

CHAPTER 3.

Communications

Communications are of vital importance to all countries in times of peace and war.

The Pottery Towns of Tunstall, Burslem and Hanley stand on hilly ground on the ridge east of the Fowlea Brook valley. Stoke-upon-Trent lies on the low ground astride the Trent, whilst Fenton and Longton lie on rising ground south east of Stoke. The story of how these towns have been linked together by River, Roads, Railways, Canals, Post, Telephone and other means throughout the years, is a romance which reveals a wealth of fascinating details, so important in the history of the six towns which form the major portion of the City of Stoke-on-Trent.

As with other essential amenities, such as water and light, one feels that it is fitting to present such chapters early in this history.

The Rivers and Streams, some of them, as a previous chapter has shown, older than the Great Ice Age itself, are therefore the first forms of communications to warrant our attention. The River Trent that has flowed through the land of the Potteries during countless ages, is one of the oldest rivers in England and starts as a trickle of water from one of the south western spurs of the Pennine Hills.

There has from time to time been some controversy as to the location of the true source of the Trent. It is, however, generally agreed that the stream rising on Biddulph Moor and passing through Knypersley Pool, is the genuine headstream of the River Trent. So intimately linked with the City of Stoke-on-Trent, is this river, that one feels it well worth while to record some observations by investigators into the question of its source. For some few years Mr. J. Myers, Senior Geography Master, at the Wolstanton Grammar School, considered the evidence and concluded that the source of the river was in fact on Biddulph Moor. In addition, Mr. Miles, of Tunstall, and Dr. D. G. Beech, together with other members of the North Staffordshire Field Club, followed the river to its head-waters. They reported that there were two streams rising in North Staffordshire, each of which has been claimed as the head or source of the River Trent. The first, rising on the east side of Mow Cop, from springs in the cellar of the Inn at Mow Cop, runs through Brown Lees, Brindley Ford, Ford Green and joins the main stream in the fields near to Milton. The second stream, accepted as being the main stream or source, rises at a place named 'Fortune of War,' near to Biddulph Moor village. The stream comes out of the bank side via a two inch iron pipe, with a good force in wet weather. Two major streams join the Trent, the Lyme Brook, which is closely connected with Newcastle-under-Lyme, and the Fowlea Brook, which rises in the Bath Pool, near Harecastle. The Fowlea Brook flows through Longport and Etruria via Garner Street to Stoke, round by the back of the Town Hall, underneath the canal and beneath Brook Street, after which it enters the Trent. Both these streams were at one time delightful little waterways, often lined with willow trees and quite well stocked with fish.

The River Trent is approximately one hundred and fifty miles in length from its

source on Biddulph Moor to where it unites with the River Ouse to form the River Humber, about fifteen miles west of Hull. Flowing from its source via Knypersley, Milton, Abbey Hulton, Botteslow (Hanley), thence by Stoke Church, Boothen, Trent Vale, Hanford, Trentham, Trentham Park to the city boundary at Strongford Bridge, it soon departs on its long journey via Burton, Nottingham, Newark and Gainsborough to the River Humber. During its course the River Trent receives the Rivers Sow, Tame, Soar, Devon, Blithe, Dove and Derwent. It is described now as, 'A small and somewhat dirty stream as its passes through the Potteries, but it does become a fine river before it leaves Staffordshire.'

It was this, 'somewhat dirty stream,' that was one of the main reasons for the Duke of Sutherland leaving his stately home, Trentham Hall, and indirectly a cause of the demolition of this beautiful Italian-style mansion; for not only was the Trent dirty, it was 'odoriferous' and in a way not interpreted by Nuttall's dictionary!

There have been numerous alterations in the course of the Trent and of the Fowlea Brook, in various parts of the City. In 1923, extensions to the Campbell Road, Stoke, necessitated an alternate course which was not so winding as the old one. The old course to the left of the new, was blocked up. Unfortunately the Trent, throughout the Potteries, is little more than a stream. It is not in any sense navigable, other than perhaps by a one man canoe; a journalist, Mr. John Abberley, indeed having tried out this method. Nevertheless it is useless as a communication. It can only be said to carry the flood waters and other liquids to other regions where as instanced, they were not welcomed. Nor in ancient times were the flood waters welcomed, for early man did not like the valleys. Locally as elsewhere, thick forests choked the valleys, harbouring wild animals and hampering travel whilst the 'Trent' and other waters would spread in sudden flood, until man had learnt to direct their courses. Today it is on the ridges that the greater portion of our population is housed. It was on the hills, that the men of the Stone Age and Bronze Age built their fortifications and buried their dead. Their trackways and paths kept mostly to the ridges and avoided the often marshy valley floors.

Although the River Trent and the Fowlea Brook passing through the Potteries were useless as forms of communication it was necessary that in later times they should be crossed in many places in order that the early potters, with their strings of pack mules with panniers, containing crude pottery slung across their backs, could cross from point to point and beyond the district to Liverpool and to the market towns and villages of the surrounding moorland.

Mule Tracks, Fords and Bridges

It is in this early pack-horse age that the history of the communications of the Pottery towns really begins.

The earliest means of communication over the land forming the Potteries would take the form of footpaths and these one feels would in due course become pack-horse or pack-mule tracks. Inevitably these tracks had to cross and recross at intervals the numerous streams that meandered through various parts of the district at that time. The River Trent had to be crossed, a not too easy task, especially at periods when in flood.

The rivers and streams were crossed at places called fords (shallow crossing places). At these places the water was shallow. In very many cases they were sheltered spots to which the track or pathway gradually sloped on either side, delightful in summer, but sometimes menacing in the heart of winter, swollen waters in the streams probably resulted in tragedy for a traveller.

Local fords were often given names to distinguish them and many of these names remain to this day, although some of the ancient streams have either ceased to flow or have been taken underground by culvert. Thus we get such names in Stoke-on-Trent region, as Hanford and Sandyford.

The Fowl Ley, Fowl Lea or Fowlea Brook, as it is now called, was forded at Longbridge or Longport. There was a pleasant ford at the Blurton end of Longton Hall Road. These small fords were legion, many unnamed, whilst others have lost their names in the mists of time and only the more important—those usually crossed on the pack-horse routes—having survived. At least one may gather that place names ending in 'ford,' in this City and elsewhere, may generally be traced to an ancient ford.

It is difficult to realize that at as late a date as 1850, the River Trent, at the junction of Lichfield Street and Leek Road, Hanley was crossed by means of a plank and hand rail. As at Longport, Longton Hall and other local fords, the plank bridge became submerged during periods of prolonged wet weather, and meant a detour, unless one was on horse back. In addition the plank bridges were sometimes swept away by the swift flowing water.

With the passing of time the fords were bridged. Gradual increase in the crude pottery industry brought with it some measure of improvement, but between the fifteenth and even eighteenth century, people of the Potteries splashed through the fords on foot, horseback, or by way of the occasional plank 'bridge' and these rare bridges were usually ones that had been privately erected. Bridges were only to be found on the roads to the market towns and these were not always well cared for, as is illustrated by the fact that about the year 1686, the County Authorities were involved in a law suit, for not repairing the Stoke Bridge, and the Hanford Bridge was said to be in a 'state of decay.' The Strongford Bridge, on the boundary of the present City of Stoke-on-Trent, was carried away by a flood in 1665, and was replaced only by a horse bridge. It was, however, reconstructed in 1709.

So far as the Potteries is concerned the 'Longbridge, over the Fowl Ley,' Brook at Longport, was considered one of the most important. It was the bridge over which pack mule teams made their way from Burslem to Newcastle. This road from Burslem, the remains of which are now known as Pack Horse Lane, Burslem, was one of the few true pack horse roads in the Potteries. It ran from Burslem, between the present District Bank at the top of Newcastle Street and the (present 1957) premises of Messrs. Alcock's cycle shop, which in 1842, was the entrance to the east front of the famous manufactury of Enock Wood & Sons, and was, of course, a part of a long and very old road. It can still be traced in the upper part of the road, on the north side of the bank; although now only a short lane leading to a pottery works may still be seen with its old cobble stone surface. On the earliest known map of Burslem, dated 1750, the road is marked 'Packhorse.'

The Longbridge spanned a distance of about one hundred feet over and parallel with the brook, through the swamp of the valley. Of ancient origin, despite its importance it was often in a state of decay, due mainly to the neglect and the varying weather conditions.

About the year 1624, travellers going to the numerous markets were, 'in danger of theire lyves.' This was, of course, a serious matter for, as late as 1850, the pack-mule was still used as a form of transport. It is recalled that one, 'John Stanway, of Etruria, used to fetch his coal from Newcastle (Staffs.), in panniers slung across the back of an ass.' Longport has always been subject to flooding and the danger was not confined to the early 'Longbridge,' for in later years the important canal bridge at Longport caused this comment; 'On September 4th, 1858, attention was called by Mr. Bowers to the manner in which the new bridge at Longport had been constructed. The bridge had been raised, and the road had been made so that all the storm water flowed into his houses.' A few days previously there had been a storm, after which his tenants' ducks 'were found swimming in the back premises and the pigs were shrieking, with fear of being drowned.' It had been the intention of Mr. Bowers to erect sixty or seventy houses on the adjoining land, but this was considered impracticable. 'Instead of the Health Board having expended four hundred pounds on a work which would benefit the town (Burslem), it would be a source of many accidents to life and limb.' 'Tenants would not live in the houses, and it was almost impossible to stop at the Pack Horse Inn a carriage coming over the new bridge.' The Surveyor claimed that the gradients were as low as possible. On the same road, near to Longbridge, there was a smaller bridge called the 'Small Bridge.' Between Shelton and Penkhull, the Fowley bridge crossed the 'Fowle Ley' Brook, in addition to many small unnamed bridges.

With the passing of time footpaths and tracks became pack-mule paths, fords and plank bridges became, in the more important places, pack-horse bridges; these in turn became joined by the pack-horse roads. Only the major or true pack-horse roads in the district were mapped in, or about, the year 1750.

A pack-horse road may be described as a narrow unmade green lane, sometimes fenced but in the main, open and usually not wide enough for vehicular traffic. Sunken and hollowed out by years of use, these roads were often known as 'hollow ways.' Rough at best and sometimes impassable at periods during the winter, even to the pack-mule.

Before finally moving to the story of the roads of Stoke-on-Trent, one feels, that some comment on the ancient footpaths in the district, would not be out of place. Rights of way, of old tracks and footpaths, has often been considered by the public to be a birthright. The closing of ancient ways has always been regrettable. In 1856, considerable attention was given to the subject of field pathways, in and near the towns of the Potteries, when many lease holders and owners of land sought to put an end to many of these field ways. In this same year a society was formed with the specific object of keeping open and in constant use those paths which were still left and reopening others which had been wrongly closed against the public. William Brownfield, of Cobridge, was president of the society. It was felt too, that with the advance of the mechanical age, that the highways would become closed to

all who disliked noise and dust with the increasing danger of bodily injury. A good deal of useful work was accomplished by the society, but the question of these pathways was spread over many years, for in 1862, 'the subject of opening some of the ancient footpaths now closed about Longton is engaging the attention of the commissioners. The Improvement Committee, to whom the question has been referred, held a meeting, when it was decided as a step in the right direction to memorialize J. E. Heathcote, Esq., lord of the manor, in reference to the re-opening of certain footpaths which are said, in the days gone by, to have formed the loveliest rural walks in the district.'

The footpaths closed had run from the south side of Heathcote Road, through the Ridge fields and then continued in a straight line through lands then (1862) known as Longton Ley and terminating at a point near to the lower Gom's mill and brook. Another footpath, now closed (1862) began near to one of the Longton Hall lodges, and passed in a line across the Ley, terminating at Spratslade, near the old workhouse premises.

It was inevitable that footpaths, delightful as they were, should pass away with time and very few are to be found within the city. Today, their rustic charm departed, few can be recognised as anything but muddy tracks passing between slag heaps, such as are to be found at Far Green and Sneyd Street, Cobridge.

In 1862, further north in the town of Burslem, the same problems were confronting the Board of Health, Highways, Lighting and Improvement Committee, concerning the field paths and an enquiry was held by the Board as to the obstructions which were ever encroaching on the paths. They reported that rural footpaths, on both sides of the road at Hot Lane, had been destroyed by the formation of a private road to May's colliery, which they recommended should be restored. On the Sneyd estate, also in the occupation of Messrs. May, they also found the footpath from the top of Hot Lane to Sneyd Green, through the Earl of Macclesfield's land, had been greatly damaged by mining operations and in some parts completely ruined. These the committee recommended, should be restored. In addition on the Sneyd estate, they found that from the top of Hot Lane to Moorland Road, there was also a considerable obstruction, from the same colliery. The footpath leading from Moorland Road, by Sylvester Square to Nile Street, Burslem, was marred by an air shaft which had been sunk close to the path. The committee felt that some of the ancient footpaths had been diverted on the northern and western sides of the district, beginning in Moorland Road, across Hamil Road, through the Bycar's estates to Greenfields, and the several footpaths leading from High Lane, westward. In conjunction with the Tunstall Local Board of Health, it was decided to place a new footbridge across the brook forming the boundary and also to renew the footbridge across the brook on the path leading from the Sytch, to the top of Smallbridge Hill. This same committee was apparently also alarmed to find that at this date (1862) 'The North Staffordshire Railway Company have erected gates entirely across the road leading to the wharfs and lands at Longport upon the footpath to Chesterton, which is an important outlet and has, for a period longer than can be remembered, been used by the public without let or hindrance, although the company had not yet attempted to lock the gates.'

Such were the ways in which the pleasant footpaths and byways of the district gradually disappeared.

The large number of Inns to be found near to the pack-horse roads was an indication of the slowness of travel by the pack-horse and pack-mule. Where one would now do a journey within a few hours, the same would take a week or more by the old methods.

The state of the early road accounted also for the comparatively large numbers of blacksmiths to be found during these journeys.

Pack-horses and mules traversed the narrow lanes in single file, the leading one wearing a bell. Panniers slung over the backs of the mules had to be watched with care, for a broken leg, not by any means unusual in the deep rutted tracks, treacherous and waterlogged in winter and baked hard in summer, meant abandonment or death for the animal; whilst breakage of wear in the panniers through falls was a frequent loss to manufacturers. Such could be the lot of the pack-horse, with perhaps one exception, that of the famous Fenton pack-horse bearing the name of 'Dragon.' In 1786, this horse, housed at an Inn in Fenton, had earned the admiration of all by its strength, perseverance and the speed by which it became legendary.

Footpads and robbers haunted the lonely pack-horse roads and were a very real menace to travellers. One of the main pack-horse roads, which left Hanley by Woodisun (Marsh Street), Brook Street (off Marsh Street North), connected with the lane from Newcastle and wound through Cobridge and the lower end of Hot Lane, Burslem, where it branched; one route going approximately via the present Nile Street, Burslem, and the other, a narrow lane behind, and to the west of what is now Waterloo Road, but which was then a portion of the adjacent fields. Passing Cross Hill and in front of the church yard, it ran by Bournes Bank, a steep incline, to Swan Square. From here the road probably traversed the slope by way of St. John's Square, or through the Market Square, on to Hill Top. From thence it went down the narrow steep passage of the Back Sytch, past the Sytch Water Mill on the Brownhills Hall estate and past the hall, where it would join the road from Newcastle and Longport, into Tunstall and the north.

From Burslem, the Mother Town of the Potteries, an important pack-horse road ran from the Market Square, as already mentioned, via Pack-Horse Lane, winding by St. Paul's Church, Dalehall, via Trubshaw Cross, fording the stream at Longbridge (Longport), by the present road past a group of houses called Longbridge Hayes. From thence it went round the Bradwell side of what is now Longport Station and up the hill, now traversed by the road (made about 1875) and so on to Wolstanton and Newcastle. At Longport the pack-horse road also branched near to the present station and wound away over the Bradwell Woods.

Unfortunately many of the pack-horse roads and lanes were not mapped and locally the picture of them is incomplete. The map of Burslem, dated 1750, is one of the few guides to the early communications in the Potteries. On this map roads to Hanley, Tunstall, Chell and Newcastle are shown. References to roads, etc., are also made in the records of the 'Rolls' of the Tunstall Manor Court, showing that paths and lanes existed and were kept in some form of order. Places mentioned included villages like Bemersley, Bradwell, Oldcott, Ranscliff, Sneyd, Statmorslow, Thursfield

(Newchapel) and Wedgwood. Inhabitants and holders of land were held by the Manor Court to be responsible for their maintenance. From the Court came such decisions as here quoted.

In 1664, 'A pain of five shillings on R. Keeling and John Burslem, that they scour the ditch along the way, leading from Thursfield Chapel to Great Chell.' In 1636, 'A pain is laid that the inhabitants of Sneyd and Tunstall shall sufficiently repair the road,' and in 1654, we read, 'A pain is laid on those that hold any lands adjoining to the Hollins Lane in Bemersley, that they cut the hedges and scour the ditches, that the way may be passable.' In 1636, the Court orders that, 'Inhabitants of Sneyd and Tunstall shall sufficiently repair the road between Little Chell and the Furlong.'

There were also paths to the Abbey at Hulton from the early thirteenth century and to the churches and chapels. An ancient lane from the Grange of Rushton, at Cobridge, was made and used by the monks when passing through Sneyd Green to their Abbey which had been founded at Hulton, almost two miles away, in 1223.

The latter half of the sixteenth century produced a number of Highway Acts, a sure sign of the awareness of the Government to the fact that better roads were becoming increasingly necessary. In 1555, a Statute for Mending the Highways, recorded that parishioners, 'Shall upon Tuesday or Wednesday in Easter Week, elect two honest persons of the parish to be surveyors for one year.' The work was to be completed free, and tools were to be supplied by members of the parish. By an Act of 1562, the surveyor could dig gravel and gather stones from any land adjoining the highway under repair, with only a stipulation that the pits, so caused, must be filled in. The Tunstall Court Rolls, 1677, record that the overseers of the highways at Great Chell were fined for not filling in a pit from which road mending material had been dug. The year 1586 saw enforced a system by means of a Statute of Labour, by which inhabitants were liable to six days work on road repair and fines of approximately four shillings were due, 'for not so doing.' In 1654, Parliament made it possible for a rate, not exceeding one shilling in the pound, to be made on all parishioners who paid poor rates, to assist in the expense of repairing the roads. By the Highway's Act of 1691, the Quarter Sessions could levy a rate to whatever amount they saw fit. A year or so after this, highway rates were levied in the parishes of Stoke, Shelton and Hanley, at the order of the Staffordshire Quarter Sessions.

Bridges also had to be maintained by those who had erected them and failure to do so was a punishable offence under Manorial Law. Large bridges mostly belonged to the parish. Longbridge, the important bridge at Longport, was the responsibility of the inhabitants of the Tunstall Manor. The 1531 Statute of Bridges declared that, 'Decayed bridges might not lie long without any amendment, to the great annoyance of the King's subjects.'

Where is was impossible for a parish to find the total money required for repairs, they were able to appeal to the Quarter Sessions for a grant. Such was the case at Longbridge. In appealing, the Tunstall Manor Court said of the road and bridge, 'it is a great passage out of the north partes unto dyvers market townes within the countie and of right, townes ought to be repayred by the inhabitantes of Tunstall Courte, who have earnestly petitioned for ayde towardes the repaire thereof undertakinge never hereafter to desyre any assistance out of the rest of the Countie towards

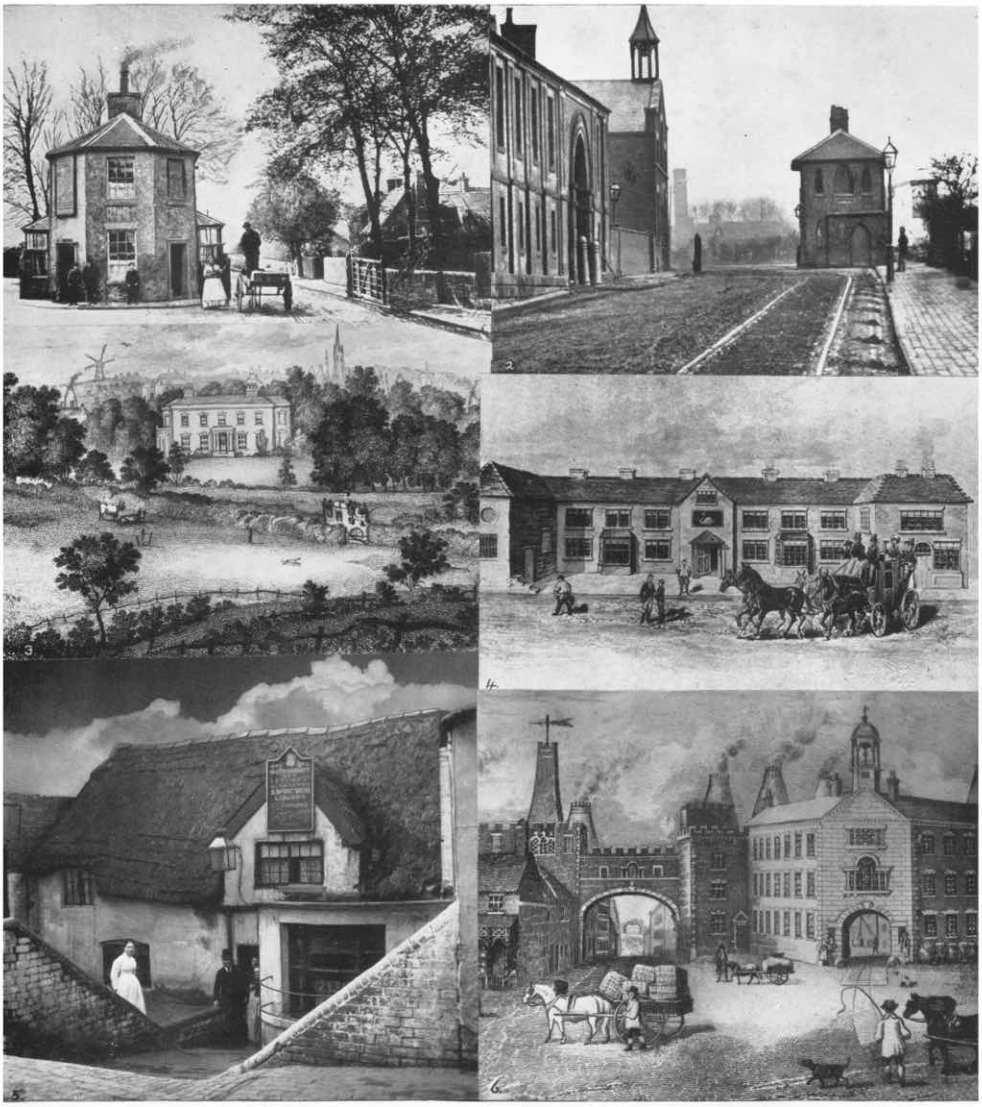
the maintenance thereof, being themeselves not able at this tyme to undergoe the whole charge.' Twenty pounds was granted towards the repair. The parishioners it would seem were well satisfied, for there is no further record of their seeking assistance to repair the Longbridge which linked the pack-horse road from Tunstall to Newcastle-under-Lyme. Assistance from another direction was forthcoming, for in 1544, John Adams, of Wolstanton, bequeathed three shillings and four pence for its repair. Nicholas Adams, of Sneyde, in the parish of Burslem, gave, 'One planke of wood to the mendyng of the Fowle Ley Brydge at Dakyns (Longbridge), and also one planke to mend the Brydge at the Fowle Ley, gowyng from Shelton to Penkyll.'

Doctor Simeon Shaw gives an interesting account concerning pack-horse roads in his, 'History of the Staffordshire Potteries.' It is an extract from an account related by an old man of eighty-three named Ralph Leigh, who was born in 1720, and who worked for John Taylor, of Hill Top, Burslem. He says, 'During a long time, I carried crates of Pottery to Winsford and brought back Ball Clay, each of the five horses carried a crate on a pack-saddle; and a small pannier on each side was used to hold two or three balls of clay, weighing sixty or seventy pounds. Each horse was muzzled to prevent it from biting the hedges, and the roads were narrow and bad, and without toll gates. Afterwards, with a cart and four horses, I went to Winsford, and delivered my crates the same day; and on the second day I brought back a ton of Chester clay to Burslem, which was regarded as very heavy work, owing to the bad roads. I was allowed four days to take crates to Bridgenorth and bring back shop good to Newcastle, and a few to the Potteries. I frequently went with crates to Willington Ferry and returned with Flints, Plaister Stone and Shop goods. I have gone to Liverpool and also as far as Exeter, before there were regular Carriers. Mr. D. Norris, of Lawton, kept a gang of horses to bring Clay from Winsford, and Salt from Lawton, to Burslem; these horses also had crates to carry the ball clay, seven in each; which at times were filled with Cream Colour, to be printed by Sadler and Green, of Liverpool. I next used a Cart and afterwards a Waggon for this purpose, when the High roads were rather improved.'

We have thus seen something of the early means of communication through the villages of the Potteries and of the packmen, or cratemen, who with their heavily laden mules, or horses, passed over the soft clay-bound lanes of our present six towns, their panniers filled with crude ware, clay, coal, flint and salt. Salt was an important commodity brought from around Northwich.

J. Stow in his book, 'Survey of London,' (1598) says that road waggons were travelling on main thoroughfares as early as 1564, almost four hundred years ago. Dr. Simeon Shaw, a distinguished Potteries historian, recorded that carts were used in the early eighteenth century, but adds that, 'only a good team of horses could draw a cart along the highroad, such was their broken-up state and not a single one-horse cart was in use in the Lane End (Longton) side of the district till the end of the eighteenth century.' Neither roads nor bridges in the Potteries, in the early part of the eighteenth century would take the heavy loads.

Although the Turnpike Act of England, passed by Parliament in 1663, gave power to erect tollgates and levy tolls for repair of roads, turnpikes did not come into operation in most of the country until the eighteenth century. So it was in the



For information see overleaf

1. The Brownhills Toll Gate, 1871. There were two gates, one leading via the Sytch to Burslem and the one shown, to Trubshaw Cross and Newcastle. The last known gate-keeper was a Mrs. Fletcher, seen taking a toll. During 1956-7 the picturesque old houses behind the trees on the right were demolished, modern houses built and, at the turn of 1957 the still healthy trees which so accurately marked the site of the toll gate and house, were cut down.

2. The Cobridge Toll House, *circa* 1870. The building on the left still stands and houses Simpson's 'Soho' Potteries Ltd. The lines on which the horse-drawn trams ran are seen in the foreground.

3. Stage-coach passing along the Sytch Road in front of Brownhills Hall, *circa* 1842. The Hall still stands, used—and almost hidden by—Brownhills High School. On the horizon can be seen the Tunstall Windmill and Christ Church, Tunstall, where a romantic find, in 1932, uncovered a quantity of church plate. Boarded up in a room and forgotten it had remained hidden for about forty years.

4. A coach leaving the Swan Inn, Hanley, *circa* 1835.

5. The Foaming Quart Inn, High Street, (now Greenhead Street) Burslem. This 'coaching inn,' in existence in 1828, was demolished about 1925 and was one of the last thatched buildings in Burslem. The present building stands almost on the same site, but a little nearer to Scotia Road.

6. Packhorse Lane, Burslem, *circa* 1842. It was at this time the road from Burslem to Longport and Newcastle. The buildings, still recognisable, were part of Enoch Wood & Sons manufactory. An illustration from Ward's History.

Potteries, but it was well on into the century before there were many such roads in the district. Josiah Wedgwood was a leader in the turnpike roads scheme, locally, and worked indefatigably for the scheme.

The first turnpike road in North Staffordshire was, 'the eight computed miles from Tittensor to Talk o' the Hill, in the post road from London to some of the northern parts of the Kingdom.' The date, 1714. The road passed through Trentham, Hanford, Trent Vale, Newcastle, Chesterton and Talke. In 1734, the Act of 1714 was renewed.

In 1759, an Act was obtained for erecting turnpikes on the old road from Derby to Newcastle in Staffordshire. It was divided into two districts, the second of which included Blythe Marsh, Meir, Lane End, Fenton, Stoke and Newcastle. Trustees were appointed for each of the two districts. Well known Potteries men of the time were appointed to this district Trust and included such well known names as Adams, Bourne, Harrison, Mare, Shelley, Turner, Wedgwood, Wood and Whieldon.

The mid-eighteenth century onwards was marked by great progress in the manufacture of pottery. Elers, Twyfords and Wedgwood were all names, who were to raise the industry to great heights of perfection.

Josiah Wedgwood and his partners in business, Thomas Whieldon and John Harrison, were educated men by the standards of the district and great credit goes to them for their work, although bitterly opposed by many, in securing the Act for a turnpike road in 1763, from the London—Liverpool, at Red Bull, Lawton, to Burslem (by-passing the Back Sytch). Through Burslem it went by way of Liverpool Road, now Westport Road, passing into St. John's Square, Queen Street and Nile Street. This road was turnpiked to a point somewhat south of the junction of Nile Street and Wellington Street, but did not officially join the Newcastle—Leek road at Hot Lane. Owing to opposition, from Newcastle, to a project for a turnpike road from Cliffe Bank (at the foot of the Honey Wall at Stoke), linking together the villages of the Potteries, planning was difficult and piecemeal. The Newcastle Street of to-day, at Burslem, was also included in the project, with the intention of doing away with the Packhorse Lane and linking up with the Newcastle—Tunstall road at Trubshaw Cross. This scheme was also covered by the Act. The Newcastle—Tunstall road approached Porthill by way of the present Station Road and Station Street, the main road to Newcastle, over the railway bridge, as seen to-day, being constructed in the nineteenth century. The 1763 petition was sent, for consideration, to the House of Commons on February 16th, 1763.

'A petition of the several towns and villages, and of several merchants and traders residing in the town of Newcastle-under-Lyme, was presented to the House and read, setting forth that the road leading from the Red Bull, in Lawton, in the County of Chester, to and through Killegrew, Golden Hill, Tunstall, Burslem, Cobridge, Hanley and Shelton to Cliff Bank, near the town of Stoke-upon-Trent, in the County of Stafford, is in a ruinous condition and, in many places, ponderous, narrow and incommodious and cannot be effectively repaired and widened by the ordinary course appointed by law, and alleging that at the extremity of the said road at each end falls into a great Turnpike road, namely that at the Red Bull, at Lawton, into the Turnpike Road leading towards Northwich and Winsford Ferries, where the

navigation commences, and at the other end, namely, Cliff Bank into a turnpike road leading into Uttoxeter and so on to Willington Ferry, where the navigation to Gainsborough and Hull commences, by which two navigations the materials for the manufacture of earthenware are chiefly brought and conveyed and the manufactured goods and wares chiefly carried to their respective markets, whereby great profits and advantage arise in case the said communication between the said Turnpike Roads was made easy and passable for carriages; that some of the petitioners have already subscribed and are ready to apply immediately the sum of £1,200, for and towards the repair of the said roads and only wait for the power of erecting turnpikes to reimburse them and to complete the said roads.'

Three days later, on February 19th, a second petition was presented to the House of Commons, suggesting that instead of the road being turnpiked from Lawton to Cliff Bank at Stoke, as requested by the first petition, it would be better if the route of the proposed road were, 'Lawton, Killegrew, Golden Hill, to Isaac Cartlich's house, in Burslem, and from Tunstall by Trubshaw's Cross and Tan House down Sparke's Hollow over a common field, called The Brampton, to Mr. Lovatt's house, in Newcastle-under-Lyme, and, also, by Trubshaw's Cross to Burslem.'

There was great opposition from Newcastle, who feared for their own interests. Many of the Newcastle people were big land owners.

Josiah Wedgwood was called before a special committee, where the petitions for and against were considered. Leave was given to bring in a Bill, with the amended route, which was supported by the people of Tunstall, Burslem, Cobridge, Handley Green and Shelton.

On March 31st, 1763, the Act was passed resulting in the appointing of some three hundred trustees. The Act empowered the trustees to put turnpike gates where they deemed necessary.

The trustees of the Derby—Newcastle turnpikes road applied for an Act enlarging the term of the previous one of 1759. They asked, in addition, for an extension of road from Cliff Bank to Snapes Marsh, in Shelton. Josiah Wedgwood was, also, instrumental in getting the road from Shelton—Burslem turnpiked . . . This included the roads from Shelton—Cobridge, and Burslem—Cobridge.

The Act of 1765 permitted turnpikes to be erected on these two roads—a profitable matter for the trustees—so it came about that the year, 1765, virtually witnessed the first trunk road through the length of the Potteries.

As time passed, so the turnpike roads increased and, in 1771, an Act allowed the turnpikes on the road from Stone—Lane end (Longton) and to the road between Leek and Sandon on to Meir Heath and from there to Blythe Bridge; and also from Meir to Trentham. Also, in the year 1771, a Turnpike Act was brought into being for repairing the roads from Shelton through to Bucknall to Weston Coyney, in addition to a number of villages outside the Potteries. Eventually, all the turnpiked roads in the Potteries were linked with the main highways. In 1791, work was started on constructing a road, branching from the high road at Trent Vale by the Black Lion Inn, to Shelton. The order book recording this, the Tittensor Road Order Book, was signed by Josiah Wedgwood, Josiah Spode, Thomas Whieldon and others, Within four years of this date, Josiah Wedgwood had passed away, having achieved

most of what he had set out to do concerning the turnpiking of the Potteries roads.

Toll Gates

The Potteries Turnpike Roads had to be maintained and the intention was to transfer the expenses of repair from the inhabitants of the parish, which had largely been the case up to about the year 1716, to the user. The parish was, however, not entirely freed and from 1716 onwards, the turnpike surveyor could agree with the parish, for an annual amount to be raised by the Parish Surveyor by a rate in lieu of Statute Labour.

In order to bring this about, toll gates, or toll bars, and toll houses were erected and built at various points on all the turnpike roads in the Potteries.

By the Turnpike Acts, all who passed through the gates had to pay toll, with the exception of foot passengers.

As in other parts of England, the romance of the Potteries Toll Gates, Bars, Chains and Toll Houses, makes a fascinating study. At present, only here and there, after careful search, are a few of the old toll houses to be found. Here, I shall attempt to locate some of the considerable number of toll gates that once were in operation within the present city boundary and tell something of the financial position, humour and roguery that were associated with them, until finally the last gate closed, for the last time, within the City of Stoke-on-Trent, at Longton, in the year 1933.

During the early years of the Turnpike Acts, the administration was in the hands of local Justices of the Peace. In the year 1706, administration passed into the hands of well known inhabitants and, as already shown, prominent early pottery manufacturers, like Josiah Wedgwood, were the pioneers of turnpike roads in the Potteries. There were many toll gates and the trustees of any turnipke roads were empowered to place the gates where they desired. Toll gates existed, at one period or another, at:— Meir Heath, Meir, Blurton, Trentham, Longton, Fenton, Heron Cross, Stoke, Hartshill, Trent Vale, Shelton, Hanley, Etruria, Etruria Vale, Vale Place, Bucknall, Cobridge, Hot Lane, Burslem, Smallthorne, Brownhills, Longport, Tunstall, Sandyford, Red Bull (Talke) in addition to many others.

Toll gate keepers had to be on the spot throughout the day and night and toll houses were built to house them and their families. Many of these houses were quite picturesque, often situated in the middle of branching roads, as with Brownhills toll house. They frequently had gates on two sides of the house and toll windows enabling tolls to be taken from traffic from both roads. With the Brownhills gates, tolls could be taken from traffic from Newcastle, to the north, and from Burslem to Tunstall, by way of the Sytch.

Illustrations of Potteries toll houses and gates are exceedingly rare and it is difficult to present a true picture of the scene except in a very few cases. Although I have been collecting old views of the towns and villages of the city for over twenty-five years, having saved many old prints, photographic negatives, prints and pictures, all most valuable from a local historical point of view, very few views of toll houses have come to light. When identifying some of the buildings, it will be endeavoured to give as accurate a description as possible. Toll charges were, of course, used largely to maintain the roads, with, perhaps, a profit to the trustees or owners. In

some cases, towards the end of the eighteenth century, the trustees of a turnpike trust would let or sell turnpikes, which were auctioned to the highest bidder, who might see in the transaction a business proposition as well as a service to the public. An hour glass was used by the auctioneer—when it ran out, bidding had to cease! These toll charges were most interesting, though possibly not always to the payee. Charge varied for several reasons. Heavily loaded waggons, with narrow wheel rims, paid more since it was considered that such vehicles did most damage to the roads, often cutting deeply into the surface, thus making constant repair necessary. Almost all but pedestrians were liable for toll charges. A toll was levied on horsemen and cattle passing through the gate. The charges appeared to be heavy. Coaches and waggons (four wheels) paid one shilling. Carriages etc., with two wheels, paid sixpence; horses, mules and asses, only one penny. For twenty head of cattle, the toll was eight pence and for twenty sheep or lambs it was four pence. There were many special reductions, however, for traffic of a local industrial nature.

About the year 1740, increased efforts were made to lessen the damage done to the roads by vehicular traffic and narrow rimmed wheels were discouraged more than ever. By 1766, Acts, penalising waggons with narrow wheels, came into force and fines were made on those who persisted. It was believed that the wider the wheel the less damage there would be to road. Such was the importance attached to this idea that, in 1773, an Act gave authority for sixteen inch wide wheels or rollers to be used on vehicles, with very special toll terms to those who took advantage, even to the extent of allowing them free passage through toll gates during the first year and from then onwards at half the toll rate. Such waggons passed through the Potteries and many of them carried huge loads and were, unlike other traffic, not limited to the number of horses drawing them. Charges usually varied according to the wheel width. Widths of under six inches often incurred a fine. Only on a few gradients were a number of horses permitted to pull the loaded waggons. The toll keeper would have quite a busy time attending to the various laws and restrictions to be imposed on the waggons.

The thunder of the hooves of the horses of His Majesty's Mail Coach was the signal for a quickly opened gate and woebetide the gate keeper whose gate was closed against it. As now, speed was a main feature of the Mail Coach and it must have been a colourful sight to see them, their coachmen, in Royal Livery, and armed guard, sweeping through the countryside. Exempt also from tolls were the military, carts or waggons bringing material for road repair, horses drawing the plough or other farm implements, cattle being driven to the fields, for milking or watering, and so on. Amongst others exempted were those curiously described as 'vagrants in carriages.'

As mentioned earlier, turnpike tolls in the Potteries, as in most parts of the country, were either in the hands of a Turnpike Trust or let out to private individuals as a speculation, thus relieving the trusts of much of the work of administration. The earliest reference to such letting is one of a number of newspaper cuttings concerning the tolls to be let. Dated Saturday, January 26th, 1811, and headed, 'Turnpike Tolls, To be Let,' it concerns the important road from Lawton to Burslem and Newcastle-under-Lyme, Staffordshire.

'Notice is Hereby Given that the tolls to arise at the several toll gates upon this road, called or known by the names of Longport, Brownhills and Red Bull gates, with the chain at Hardingswood, will be put up to be Let by Auction, to the best bidders, at the house of Mr. Colton, the "Legs of Man Inn," in Burslem, on Friday, the fifteenth day of February next, between the hours of two and four in the afternoon, in the manner directed by the Act, passed in the thirteenth year in the reign of His Majesty, King George, the Third, for regulating the turnpike roads, which tolls were let for the current year, ending the twenty-fourth of March next as follows, viz: The tolls at the Longport gate let for the sum of £160; those at Brownhills let for £245; the tolls at Red Bull, with the chain at Hardingswood, let for the sum of £302, above the expense of collecting them, and will be put up at those respective figures.

'Whoever happens to be the best bidder must, at the same time, give security, with sufficient sureties, to the satisfaction of the trustees of the said turnpike road for payment of the rent agreed for, and at such times as they shall direct. Dated this fourteenth day of January, one thousand, eight hundred and eleven.

D. HAYWOOD,

Clerk to the said Trustees.'

From this most interesting cutting, from a Staffordshire newspaper of the time, it is made clear that the value of the tolls to be let was a valuable and profitable enterprise and worth considerable sums even at this early period.

An even earlier record, not in my possession, quotes, the Tolls, at Cobridge and Oldfield Gates, in the year 1787, as being let for the sum of £228-0-0 and at Small-thorne-Lane for £77-0-0. Another cutting, dated Saturday, September 26th, 1812, relates to the letting of the Turnpike Tolls, 'arising at the Gates upon the Turnpike Roads leading from Newcastle-under-Lyme to Blyth Marsh, from Cliff Bank (Stoke) to Snape Marsh, in Shelton, and from Lower Lane to Hem Heath, all in the County of Stafford, called by the several names of Meir New Gate, Lane End Gate, Longton Gate, Fenton Gate, Shelton Wharf Gate and Shelton Gate, the auction to take place at the Roe Buck Inn, in Newcastle, on December 8th, 1812, by order of Thomas Fenton, Clerk to the Trustees.'

A further newspaper cutting, dated June, 1832, relates to the tolls to be let on the Hanley and Bucknall turnpike road leading from Shelton to Blakeley Lane Head, and from Bucknall to Weston Coyney, and from Adderley-Green to Lane End. The sale was held at the Swan Inn in Hanley, on Thursday, 12th July, 1832, at the order of the clerk to the trustees, Mr. F. W. Tomlinson.

The tolls of the Moss Hill and Adderley-Green gates were valued at £240 and the remainder at £370.

At this same period, notice was also given of the intended erection of a Side Bar or Chain across the entrance into the lane leading out of the turnpike road near the Ivy House toll gates, towards the Cauldon canal and for the removal of the southernmost of the Ivy House toll gates from its present situation to the place where it lately stood adjoining the toll house. Alterations frequently took place and it would probably be impossible to trace all these changes of the many toll gates and houses in the district. As the years passed, the value of the turnpike roads increased

and, likewise, the revenue from tolls. A late example of this took place on December 7th, 1871, for, about this period, the question of abolition of tolls was an urgent one. The annual meeting of the Lawton, Burslem and Newcastle-under-Lyme Turnpike Roads Trustees took place at the Town Hall, Burslem, when competition for the letting of the tolls was marked by 'spirited competition.' They were eventually let to a Mr. Thomas Bower, of Hunslet, near Leeds, for the sum of £2,600, an increase of £100 on the previous year.

At this meeting, it was also agreed to consider at a later meeting the question of widening Newcastle Street, Burslem, in agreement with the Burslem Local Board of Health. Despite the apparent success of the turnpike roads in the Potteries, criticism was not lacking and a commercial traveller, writing in the 'Staffordshire Advertiser,' on Saturday, February 8th, 1851, said that: 'My experience of now nearly twenty years of the Pottery roads convinces me that nothing but the strongest measures will rouse the surveyors and trustees from their lethargy. I am on the road through various parts of England ten months of the year, but in no county did I ever meet with roads in so disgraceful and dangerous a state as those in the Potteries, and yet the tolls are excessive, all through the Potteries. Thus from Tunstall to Stoke, a distance of five miles, there are three toll gates, claiming, in all, one shilling and fourpence for a gig.'

Perhaps it was not to be wondered at that there were so many cases of evasion of toll tried in the police courts and, also, many assaults on toll gate keepers. Several cases are given below.

In September, 1852, at Burslem Police Court, Charles Stanley, a servant of Mr. Biddulph, a farmer of the Grange, was summonded for having evaded toll by passing over unoccupied land instead of through the Cobridge toll gate (this stood almost opposite to the present Catholic Church Hall). The information was, 'laid under the 41st section of the General Turnpike Act,' which imposed a penalty of £5, but made exception in favour of the servants of occupiers of the land.

William Brough, collector at the Cobridge gate, on Waterloo Road, stated that, 'on the 27th of July, he saw the defendant pass with a cart load of vetches from his master's ground to the land in the occupation of Mr. Lees, when he proceeded to the bottom of Commercial Street, Burslem, and then along Waterloo Road on the Lawton and Burslem trust, to Mr. Boote's, at Bleak Hill. To get there, without going through the toll gate, he made a circuit of nearly a mile out of his way. After partly unloading at Mr. Boote's house, he turned down the road to Mr. Boote's manufactory, where he discharged the rest of his load and returned to the Grange through Mr. Lees' land, which was not a public highway.

Mr. F. C. Lees, who appeared for the defendant, said he had a very short answer to make, which was that Mr. Biddulph had an equal right of way with himself along an ancient occupation road through the Grange estate to the town of Burslem, and that, consequently, Stanley, as his servant, was justified in using it, on his master's business. He should adduce evidence that the road existed long before Waterloo Road was made, and that, when Mr. Biddulph entered on his farm, it was with the distinct understanding that he should have the use of it.

Mr. Ward, Solicitor, of Burslem, then stated that he was the legal agent for Lord

Camoys, the owner of the Grange estate, which he had known for thirty-five years. He well knew the road leading from the homestead to the town of Burslem. It passed down a field and, at the angle, took a bend to Commercial Street. Mr. Ward obtained the Act for the making of Waterloo Road, in 1814, and, before its existence, there was no other outlet than the Occupation Road from the Grange to Burslem.

'To come to Burslem through the Cobridge gate would be a circuitous route,' declared Mr. Ward.

Mr. Philip Goodall said that, 'as the agent of Lord Camoys, he let the farms, of which there were two, and the roads with them. He had known the road in question used as the regular road from the Grange to Burslem, for thirty-five years, and had repeatedly seen carts pass from it up Commercial Street.'

Richard Clewley, a labourer, said, 'he was in his eightieth year and had known the Grange for sixty years. The road in question was formerly the only way to Burslem and had been used by tenants of both farms.'

Mr. Stevenson, the toll collector, said that, 'both Mr. Alcock and Mr. Gething, now occupants of the farms at the Grange, paid toll at Cobridge gate.'

Mr. T. B. Rose and Mr. William Davenport, the magistrates, agreed that both tenants and their servants had a perfect right to use the road without paying toll and the case was dismissed.

This, one feels, is a most interesting case and assists in tracing the ancient road problem in part of the road from the Grange to the one-time abbey at Hulton.

At the Tunstall toll gate, which was erected at the close of the year, 1856, Charles Manning, a carter to Mr. Robert Beswick, tried to evade toll on the 5th of February, 1857. For this he had to answer at the Burslem Police Court. He was accused of, 'passing from the Burslem, Lawton and Newcastle turnpike road with a cart drawn by two horses, over a piece of ground adjoining the turnpike road, he not being the owner or occupier or servant or one of the family of the owner or occupier of this private ground, with intent to evade payment of one shilling, the legal toll, due from him at the Tunstall toll gate.'

This case is said to have aroused considerable interest, because the gate had been erected when toll gates were past their heyday and residents were becoming increasingly vexed by any additional tolls.

Manning said he had been advised by his employer, Mr. Beswick, to evade, as often as possible, toll at the new gate. Mr. Beswick, called upon, said that, 'he had been employed by Mr. Sneyd to lay out, for building purposes, a piece of ground in Tunstall. It was over this piece of ground, called Keele Street, that Manning had passed to evade toll and it was over three years since the commissions had approved the plan for the street. Since that time, it had been used by the public as a road. In addition, Mr. Beswick claimed to own part of this piece of ground. The magistrates imposed a nominal fine of five shillings.

There were other ways of evading toll. On August 6th, 1854, just after midnight, James Perry, tolls collector at the Newhall gate, Cobridge, chased William Daniels, a carter, who tried to avoid paying the toll by forcibly passing through the gate with his horse and cart. Having passed through the toll gate during the day, Daniels refused to pay again. Momentarily diverting Perry's attention, Daniels continued to

open the gate in spite of efforts by Perry. In this instance, a fine of £4 was inflicted, the maximum fine being £10.

In June, 1854, Robert Hargreaves was fined five shillings and expenses of nine shillings and sixpence, for riding on the shafts of his waggon at Brownhills.

Another case concerned the important Brownhills gate, on the Lawton—Burslem road, when James Higginson, a farmer, was charged with attempting to pass with a one-horse cart, without paying toll, on the 27th of March, 1847. William Smith, toll collector, stated, 'Higginson was passing through the gate on the way to Burslem market and pretended he had no money, saying he would pay on his return.' The collector refused to allow credit and warned that he would be summoned if he proceeded. Higginson then tendered payment, but the collector refused to receive it, whereupon the defendant threw the money into the toll house door. The toll keeper claimed that in view of the trouble he always had with this farmer he refused to accept the money when it was finally proferred. Higginson was fined sixpence and nine and sixpence costs.

Two cases at Hanley are of interest. Mr. Job Meigh heard a case at the Hanley Court, when Josiah Roberts, keeper of the Joiners Square (Hanley) turnpike gate, charged Joseph Stubbs, a carter, of fraudulently taking off one of two horses from his cart before passing through the Joiners Square toll gate and, on returning from his business at the flint mill on the other side of the Square, did afterwards add to, and put on, the said horse to the said cart after passing through the gate, whereby evading ninepence of the total toll due. Mr. R. Stevenson appearing for the carter, said that, 'as the horse was taken into a stable for the purpose of feeding it, the case did not come within the provisions of the Act as a wilful evasion of toll. The toll keeper said that, 'This was not the first occasion in which he had had to complain.' Mr. Meigh considered that it was a clear case of evasion of toll and ordered a fine, with costs, amounting to £1-2-0.

Also, at a Hanley Police Court, in August, 1855, Simeon Pointon, a master wheelwright, was charged with altering the date of a toll ticket, so as to evade toll at the Colclough Lane gate, near Tunstall. The ticket, printed on white paper, would free the Brownhills gate, dated July 19th. Mrs. Mary Smith, of the Brownhills toll gate, said, 'The ticket, with the date altered to 20th July, was tendered to her by the defendant on that day, who, by that means, evaded the toll of sixpence for a horse and cart.' As the tickets for the 20th should have been on a pink colour paper, Mrs. Smith consulted with the Colclough Lane keeper and the deception was discovered. Pointon paid £3-1-0 in fine and costs. Such were some of the many ways in which evasion of toll was made and toll gate keepers were kept busy at their gates, not only trying to collect legal dues, but also to keep a constant watch for the trickster, who would at least try to avoid payment. Small wonder that the toll house was permanently connected with the gate, because toll keepers had to keep a wary eye on the open door or window of the toll house if they were to carry out their duties at any time of the day, or night. Small wonder, too, that it was often not just a question of smart Potteries folk trying to get through the gate without payment, but that they should argue, cheat, and in some cases, assault the keeper in their efforts to pass. Toll gates were thus the scene of many a scuffle or fight

NOTICE.

THE Tradesmen and Public in general in the Potteries and Neighbourhood, are most respectfully informed, that a NEW COACH, called the "ECLIPSE," will commence running on *Monday* next, *December* 15th, 1840, between LANE-END and MANCHESTER, and will leave Lane-End every Morning (Sundays excepted) at a Quarter before Seven o'Clock, and will arrive in Manchester at Twelve o'Clock, from whence it will be dispatched at Four o'Clock; thereby allowing Four Hours for the transaction of business, and return the same day; a facility not hitherto afforded to the public.

WM. EMERY, ED. WEBB, and Co.,
Proprietors.

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For information see overleaf

1. Announcing a new coach service, Reproduced from the North Staffordshire Mercury, Saturday, December 13th, 1840.

2. Typical 'Coach and Pair' of the late 19th century.

3. Hansom cab in Pall Mall, Hanley, *circa* 1895.

4. Winter scene at Hartshill, *circa* 1885.

5. Cabs (Growlers) and a Hansom cab on the 'stand' by the Town Hall, Burslem, *circa* 1890. These were probably the cabs owned by Mr. John Podmore of Furlong Parade, Burslem, who ran a cab and coach service until at least 1913. Mr. Podmore used considerable stabling at the Leopard Hotel in addition to that at Furlong Parade where he was able to accommodate a large number of horses.

6. Cab stand on Crown Bank, Hanley, *circa* 1900, photographed by Mr. J. Templeman.

resulting in abuse, fines and imprisonment.

It was, therefore, a common thing for cases of assault to be brought to the local Police Courts and the quoting of a few cases presents another interesting facet to the important matter of communications.

In the early hours of the morning of the 27th of June, 1856, Mr. James Perry, lessee and toll collector of the Newhall gate, at what is now Vale Place, Hanley, was disturbed in his sleep by the sound of hooves. Looking out, he saw a party of people, in a dog cart, coming from the direction of Cobridge. Mr. Perry came downstairs and saw the defendant, a Mr. Wood, of Hanley, and another gentleman, named Stubbs, who was driving the dog cart, and a third person at the gate, pushing against it. On the gate being opened, Mr. Stubbs drove through. When Mr. Perry told him that he had to pay him the toll, Wood refused, so Perry took hold of the horse and said, 'You have toll to pay and I seize this horse for it.' Mr. Wood replied, 'I paid at the Waterloo gate.' Mr. Perry denied that this was true, on the ground that no one was attending at the Waterloo gate. On hearing this, Mr. Wood jumped from the carriage and, coming round to him, gave Mr. Perry a good shaking and forced the horse from his hands. Mr. Perry then said, 'You remember; I seized the horse and you have made forcible opposition and assaulted me.' Someone then threw sixpence on the floor. Mr. Perry locked the toll house door, after which Mr. Wood, who was drunk, made use of very strong language and threatened to kill him and after taking four running kicks at the door, burst it open and struck the toll keeper on the head. The disturbance having brought Mrs. Perry downstairs in her nightdress, she called out, 'Murder!' whereupon Mr. Wood became quiet. Afterwards, Mr. Perry went to the police, but, in the meantime, Mr. Wood went away. Cross-examined, Mr. Perry declared, 'he gave me such a shaking as almost took the breath out of me. I never saw such a violent character in my life and that I tell you confidently.' This evidence produced hilarity in the Police Court at Hanley, but this subsided, as Mrs. Perry and neighbours (they had been roused from their beds and had appeared on the scene) gave corroborative evidence. Margaret Tomlinson, who attended the Waterloo gate, stated, 'no person had paid toll or received a ticket at her gate from twelve o'clock to four, on the morning in question.' Mr. Wood and his friends denied the assault and their evidence was supported by that of John Rawlinson, Peter Robinson, Sarah Ann Hopwood, Mary Tyler and James Copestake, who declared that, 'Gate!' had been called several times and also that Mr. Perry had struck Mr. Wood who fell backwards in the road.

The magistrate, Mr. Rose, considered that an assault had been committed and, hence, that a conviction must ensue, but he did not regard the matter in the serious light that Mr. Perry did and, therefore, he did not inflict the full penalty. 'It was also clear,' he said, 'that, at least, Mr. Stubbs, who was in the carriage with Mr. Wood, treated the matter as a joke,' so a fine of twenty shillings, with costs, was ordered to be paid.

Toll gate keeping was, indeed, a round-the-clock duty and one can understand that it would not give pleasure to the keeper to be knocked up in the early hours by even sober travellers, let alone hilarious revellers.

Just such a case was that of William James, who presented himself at the Oldfield

toll gate, near Shelton, at about twelve o'clock, on a Monday in February, 1849, in a drunken and aggressive condition, calling raucously, 'gate! gate!'

The toll gate keeper, Mr. John Jones, no doubt, took a reasonable time to don sufficient clothing to enable him to go out and open the gate, only to find that James had no vehicle and need not, therefore, have troubled him. Mr. Jones, very properly, remonstrated with James and, for this, was struck on the arm with a stick. Mr. Jones then threw James down and succeeded in wresting the stick from him. This little incident cost pedestrian James a twenty shilling fine and sixteen shillings costs and, in default, to be committed to the house of correction.

In December, 1853, Mr. Josiah Roberts, collector of tolls at the Joiners Square toll gate, had the windows of his toll house broken and was threatened to a horse-whipping by a Mr. John Higginbottom, of Longton, who arrived at the gate at 1 a.m. on his way home to Longton in a gig.

Finally, a case of, 'Gross Misconduct on the Turnpike Road,' was brought before the Burslem Police Court, early in July, 1871, when Hugh Bartley, an iron furness puddler, living in Wellington Street, was in the dock for assaulting Mrs. Mary Ellen Carp and Mr. William Barlow. Mrs. Carp, who was 79 years of age, and who lived at Ball Lane, Norton, had gone to Burslem with her donkey and milk cans. On returning in the afternoon, she was riding the donkey between Smallthorne and Norton, when she met Bartley and a companion. Bartley mounted behind the old lady, made use of improper language, clasped her tightly around the waist and, ultimately, she and her assailant fell to the ground. Fortunately, this disgraceful conduct on the part of Bartley was witnessed by Mr. Barlow, who was then attacked by Bartley with a strap and buckle. Mr. Barlow replied with his umbrella at which juncture Mr. Oldham, surgeon of Burslem, came up in his vehicle and the encounter was explained to him.

After considerable resistance, Bartley was forced into Mr. Oldham's carriage and taken to the Burslem Police Station. All agreed that Bartley was drunk and a fine of £2-17-0, or a month's imprisonment, was imposed.

Such were some of the conditions to be witnessed on Potteries turnpike roads in the second half of the nineteenth century and it seemed that the toll gate system was an expensive, and not altogether successful, way of running the roads of England and particularly so as far as the towns of the Potteries were concerned, where the roads were stated by some to be the worst in England. Gradually, due to the expense of paying toll-keepers, the cost of road repairs and the ever growing discontent on the part of the road user, many of whom bitterly resented paying what was considered extortionate toll charges, many of the smaller toll gates outside the towns fell into complete disuse. It just did not pay to employ a keeper and 'Turnpike Trustees' were finding it increasingly difficult to meet the bills occasioned by repairs and make a profit.

As late as 1870, there were, within the Borough of Hanley, nine toll houses with bars and seven toll chains at which tolls were taken and sixteen people were employed in collecting these tolls for roads, the total length of which was about nine miles. In addition, there were many other officials connected with the toll trust, all of whom had to be paid. Individual freightage was high and a constant irritant to

the carrier. Between Etruria Vale and Stoke Station, a distance of approximately one mile, there were two gates and 10½d. was charged to a person driving between these places.

If one travelled from Hanley to Tunstall, there were three gates to be passed in a distance of about four miles. One could not move more than half a mile from Hanley Town Hall without having to pay toll. It was said that, at this period, 1870, the people of the Borough of Hanley were paying something like £5,000 per year in tolls. Despite this, the toll system was on the wane, for, only eleven years before this, in 1859, there were twenty miles of turnpike roads within the borough. In Hanley, in 1862, the turnpike roads were in the hands of five different trusts, who had to spend around £600 per annum on their repair and during that particular year fourteen people were employed in collecting the tolls at nine gates. In addition, the nine toll houses had to be kept habitable. It was the town gates that were making money. One gate alone produced some £1,600 and, here, the public were paying dearly in one way or another. At this time, 1862, coal, cratewood, straw, potatoes and many other everyday commodities were dearer in Hanley than elsewhere, as a direct result of the oppressive tolls which were charged at the bars and chains, of which there were at least thirteen then in use.

Alderman Boothroyd had said, in council, that there were twenty-two paying places within the limits of the Borough of Hanley.

At Tunstall, in 1859, Mr. W. E. Oulsnam, a member of the Tunstall Local Board of Health, said that, a little time previously, £100 had been spent on widening the High Street, near to Tunstall Church, but that, as soon as this had been done, 'a toll gate was put up,' and they might as well have kept the £100 in their own pockets, though it certainly would have been a great improvement, but for the toll gate. In his opinion, something should be done to throw off the 'cumberous machinery which was upon the roads in the shape of gates.' Expressing his own view, the Chairman of the Board, Mr. T. Peake, Chief Bailiff of Tunstall, said that he could only state what was his impression in the case of one trust, the Newcastle and Lawton, the roads of which passed through Tunstall. The income varied from £1,600 to £2,800 and the outlay in actual work and materials was about £1,500. Of course, this trust was an important one and so, indeed, was the Newcastle and Leek Trust, whose roads passed through Burslem, the income of which was some £2,300 and which expended approximately £800 on the repair of the roads.

It was said that there was nowhere in the kingdom so badly off as Hanley and the towns of the Potteries in the matter of roads and the 'perfectly disgraceful' tax on locomotion. One councillor described, 'the English people are not a nation of shopkeepers, but so far as the Potteries were concerned, as towns of toll gate keepers.'

At a meeting of the Burslem Town Council, in 1859, the chairman declared that, although he would like to see toll gates done away with, he could not see how they could do away with an Act of Parliament, which had just been obtained, at a great expense, for a period of twenty-one years. For a period, the Potteries put up with this grievance and with the expense and annoyance inflicted upon the townspeople. The Pottery towns were disunited on this important matter for each had its own governing body so that no united effort to abolish the toll house system was possible.

By 1862, in nearby towns, such as Derby, every toll gate had been removed at least a mile from the town and as this town increased in size, the toll gates were removed still further away.

Between Bradford and Halifax, every toll gate had been removed. Gradually, however, gates began to close for the last time and, in September, 1868, a local newspaper reported that, 'During the past session provision was made in the Turnpike Acts Continuance Bill for the speedy termination of the Lawton, Burslem and Newcastle Turnpike Trust, which comprises most of the main thoroughfares in the district.'

At a council meeting in Hanley, in March, 1870, Alderman Boothroyd moved a resolution asking the General Purposes Committee to consider the desirability of memorialising the Government to bring in a bill on an early day for the complete abolition of toll gates.

Between the years, 1871-1881, the major portion of the area, known as the Potteries, became free of toll gates although some on private roads survived until well into the first half of the twentieth century. One feels that it is regrettable that so little has been preserved in connection with these most interesting 'milestones' on the road of the story of communications and transport, for now few toll houses survive that are recognisable, whilst photographs and other illustrations are almost non-existent.

Toll gate houses varied in shape and size, but generally, as they often occupied a position in the centre of a road at a point where it branched, were tall and narrow and, in the case of the single-storey building, narrow and long. Toll gates which served single roads would be at the side of the road and the gate would latch on a post at the opposite side or vice-versa.

In the case of the New Hall (Vale Place), Hanley, toll gate, the house was a long narrow building, which stood in the centre of the road, at a point now known as Vale Place and exactly opposite to Paddock Street. It had two gates, which swung from the building and latched on posts on the opposite side of the road. Tolls were taken for Hope Street traffic and for traffic wishing to pass along Great York Street (now York Street, leading into the present Marsh Street and Shelton). Another toll house and gate was to be found on the north-east side of the road at Far Green and leading to Sneyd Green and a further toll house on the south-west side (traffic passing at the back of the Providence Chapel). In addition to those mentioned, there was an island toll house and gate at the foot of Bucknall Old Road, where it joins the present Bucknall New Road, with its gate on the one side and a bar on the other crossing the road leading to Old Hall Fields. At Joiners Square, Hanley, a toll gate barred the road leading from Stoke to Bucknall, whilst a bar crossed the main road (Lichfield Street) leading from Hanley to Fenton. In the hollow between Bedford Street, Shelton, and Etruria Park, a toll gate caught the traffic going to the canal wharf, also near this point, in Etruria Vale, a chain was placed across the road leading to Broad Street. Large boards, on which were painted various toll charges, were usually to be found on the end of the coffin-shaped toll house. An excellent example was the Brownhills toll house, which is illustrated in this book. Here, gates covered the entrance to the Sytch, or Liverpool Road, on the left coming from Tunstall and also the road to Newcastle on the right. As will be seen, this house had two doors,

one for each gate, large windows, top and bottom, to permit clear vision of approaching traffic and large boards giving the toll charges. The road between the toll house and Tunstall was widened by two feet in 1867, and the road between Brownhills and Longport was also improved during the same year.

Toll gates would often block the footpaths causing annoyance to the traveller on foot. In September, 1825, one of these people, signing himself, 'A Pedestrian,' wrote to the Trustees of the Etruria Road. 'Permit me to call your attention to the great inconvenience to which foot passengers are put when passing the toll gate at Etruria, on account of the turn-stile being fixed on the contrary side of the road to the footpath, thus obliging every person to cross the road twice through the mud and dirt, before they can get to the footpath; if this unpleasantness can be done away with, it will be a great convenience to the number of passengers who daily pass the gate and at but a trifling expense to the trust.' When travelling from Newcastle to Hanley, the Etruria toll house stood on the right hand side of the Etruria Road, at a point approximately opposite to what is now the entrance to the park, where the road forks to Etruria Vale and where there was a further toll bar.

Unpleasantness was not always confined to the people passing the gate. As already shown, this fell mostly on the toll-keeper, who suffered insults and, sometimes, injury from irate and drunken travellers.

Accidents occasionally took place and, in December, 1870, Mrs. Digby, the toll collector at the Stoke Road toll gate, Hartshill, was knocked down and seriously injured by the horse of a brewery cart, which took fright and bolted through the gate as Mrs. Digby had it half opened. From this injury she, fortunately, recovered.

Still standing is the Cauldon toll house, in Stoke Road, Shelton, probably the most important toll gate in the vicinity and a relic of the time when the road to Stoke was a narrow, deep-cut lane, lined mostly with hawthorn hedges when little was to be seen, while travelling to Hanley, but Shelton Hall and its park, to the left of the lane, and Mr. Ridgway's Cauldon House, with its well-wooded park and its manufactory, to the right. Below, just before Station Road and on that side, was Dr. Robert Garner's quaint, Italian-style residence, with its neat garden.

Where the Empire Porcelain works now stands, there were, about 1880, still open fields used by a Hanley butcher for grazing cattle. The toll house, now a confectioner's and paper shop, stands opposite to Cauldon Road. On the side of the house facing Stoke, can be seen a window, from which that side of the road could be watched. Another toll house can be seen near the top of Scotia Road, Burslem. It is situated on the right hand side and forms the end of a Pottery Works, where the road branches right into what was the old High Street and coaching road through Burslem. The several toll windows are now bricked in.

The Cobridge toll gate, an illustration of which was taken from a photographic negative in my collection, was the subject of considerable controversy. As will be seen from the photograph, it stood opposite to a building that is now used as the Cobridge Catholic Church Hall, a little above Messrs. Simpsons' Soho Pottery Works. It makes a fascinating comparison with a recent photograph. Clearly seen, too, are the lines for the early horse-drawn trams, the first form of public transport, running on lines from Hanley, which will be dealt with later in this chapter.

In July, 1867, it was suggested, in Council, that the toll gate, which was like so many more, considered a nuisance, . . . 'be placed back into the field' (then part of Lord Camoy's estate), owing to it causing an awkward curve in the lines. In August of the same year, the Highway Committee resolved that the Cobridge toll house be removed to the opposite side of the lane leading to the Grange, on condition that the road trustees and the directors of the street railway share the expense. By May, 1868, the question was not settled and the reason was ominous for all toll gates in the Potteries, 'In the present uncertain state of legislation on the subject of turnpike tolls, it was considered inexpedient to proceed with the proposal and the project was abandoned.'

Had a new toll house been built in the field, the agents of Lord Camoys said it could only have been so if the property reverted to Lord Camoys at the expiration of the Acts. It was regretted by members of the council that the gate could not be rebuilt, 'because it was most inconvenient and dangerous to the public, there having been, only the other day, a most narrow escape from a serious accident.'

Nevertheless, the Cobridge toll gate was not removed for several years and in addition to 'awkward curves in the line,' we find that, in February, 1870, directors and members of the Potteries Street Railway were complaining that they were paying £300 per annum, for their cars, to Turnpike Trustees in the district. Mr. J. S. Forbes believed the trustees might be induced to reduce the amount for tolls. A year later, in February, 1871, negotiations with the Road Trustees had resulted in obtaining a reduction of £100 per annum in the tolls.

The County Councils of the numerous Shires in England took over the main roads in 1889.

The last operative toll house gate, in the towns of the Potteries, was at Longton, situated in Millfield Road, an extension of Sutherland Road, leading towards Weston Coyney. Here, the road narrowed and was from the toll house to the road at Weston Coyney, a most pleasant private lane, well wooded with trees, hedges, bushes and shrubs, with open fields on either side. It remained so until 1934. The gate was of the heavy, farm, five-barred type. On the way from Longton to Weston Coyney, it stood on the right hand side of the road, at a point opposite to the public house round which the old road, to the Colliery and Colliery manager's house, still runs. The last keeper of this private toll road was a Mr. James Sankey. Aged 69, in 1934, Mr. Sankey had taken over after the death of his wife. A short time previously, Mrs. Sankey had succeeded her mother and grandmother at the toll house. Originally, the house had been a weighing-machine house for a small colliery in the vicinity, but it had been used as a toll house for almost one hundred years. The toll house and gate were in use until at least 1934 and was used mainly by lorries and cars passing to the colliery nearby, which still exists in a most up-to-date and modern form, and to a few private houses in the road and at Weston Coyney. Tolls charged at this date were: Motor Cars 3d.; Heavy Motor Vehicles 6d.; Motor Cycles and Side Car 2d., Horse and Cart 3d. and a Horse 1d.

Shortly after this date, the old building was demolished and the road opened up to Weston Coyney and although there is still quite a considerable portion of open ground on the same side of the road on which the toll house had stood, it is difficult

to picture the scene at the passing of the city's last toll gate.

Perhaps one of the last toll gate-keepers, still alive in 1939, was Mrs. Elizabeth Wheeldon, then in her 86th year, living in retirement in Uttoxeter. Mrs. Wheeldon had looked after the toll gate, situated at the cross-roads at Heron Cross, Fenton. On her marriage, she went to live at the toll gate house, Heron Cross, in September, 1872, and remained there until the toll gate was removed, in 1875. Here, there had been two gates: one at the Fenton end of Blurton Road, through which little traffic passed, and the other at the end of Grove Road, which was quite busy taking most of the horse-drawn vehicles to and from the Sutherland Pit. Toll charges here were as follows: Carts with broad wheels, 6d. and carts with narrow wheels, 8d. Few private carriages passed through the gates, at which the average takings were £2 a week. Two of Mrs. Wheeldon's children, her elder son and youngest daughter, emigrated to Australia.

Roads

We have learned something of the condition of early travel in the Potteries and, despite criticism, that is a healthy part of advancement, one will realise that the turnpike roads formed an important step and a very real improvement on roads which were so well described as hollow ways.

From time to time, Turnpike Trusts, especially in the early years, sought to improve the roads. In many cases, these roads formed the basis for some of the roads we know so well. Such a road is Waterloo Road, Burslem, which extends from Burslem to Vale Place, Hanley, and which commemorates the famous Battle of Waterloo. This important road improvement was carried out by an Act of Parliament in 1815. The road was opened on the second anniversary of that immortal victory.

Acts were altered and amended, or new ones brought into being, and their number ran into several hundreds. Indeed, between 1770-1774, more than 450 were passed for the construction and maintenance of roads. John Ward, Clerk to the Trustees of the Turnpike Road, called attention to the proposal for making this road by making an application to Parliament by a notice in August, 1844, 'That a bill is sought to continue and enlarge the term and alter and amend the powers of an Act, passed in the forty-fifth year of the Reign of His present Majesty, entitled, An Act to continue the Term and alter and enlarge the powers of two Acts of Parliament, passed in the third and twenty-third years of His present Majesty, for repairing the road from Lawton, in the County of Chester, to Burslem and Newcastle-under-Lyme, in the County of Stafford, and other roads therein mentioned and to alter and increase the tolls payable on the said roads; and, also, to make a new branch of the road from Burslem aforesaid to Cobridge, in the Parish of Burslem, to commence at or near the dwelling house of Mr. Joseph Machin, in Burslem, and terminate in Cobridge, at or near a Potwork, in the holding of Mr. William Adams, and, likewise, to make and open a road from the last mentioned branch to, or towards, Burslem Church.'

Five years later, in 1820, another important road, the Moorland Road, was made. It had previously been an ancient 'Pack-Horse' lane.

The importance of these main roads in the City of Stoke-on-Trent is well known. Equally interesting is the statement made in October, 1840, stating that, 'By an

Act passed in the last session of Parliament, powers are given to the Trustees of the Turnpike Roads leading from Newcastle-under-Lyme to Blythe Marsh and to Shelton, from Cliff Bank to Shelton and from Fenton to Hem Heath (usually called the Blythe Marsh Road Trust and a main trust in the district) to make Three New Branches of Road: viz, a Road (to be called the Endon Branch) from the Churchyard of Stoke-upon-Trent to, or near, Endon Toll Gate; another Road (to be called the Fowley Branch) to lead out of the New Road between Shelton and Newcastle, near Fowley Brook, and to pass from thence to the Canal Bridge at Shelton Wharf; and another Road (to be called the Shelton Toll Gate Branch) to lead out of the said Endon Branch Road, at a place near Trent Hey Farm and to pass the Shelton Toll Gate and from thence to the said Fowley Branch Road.'

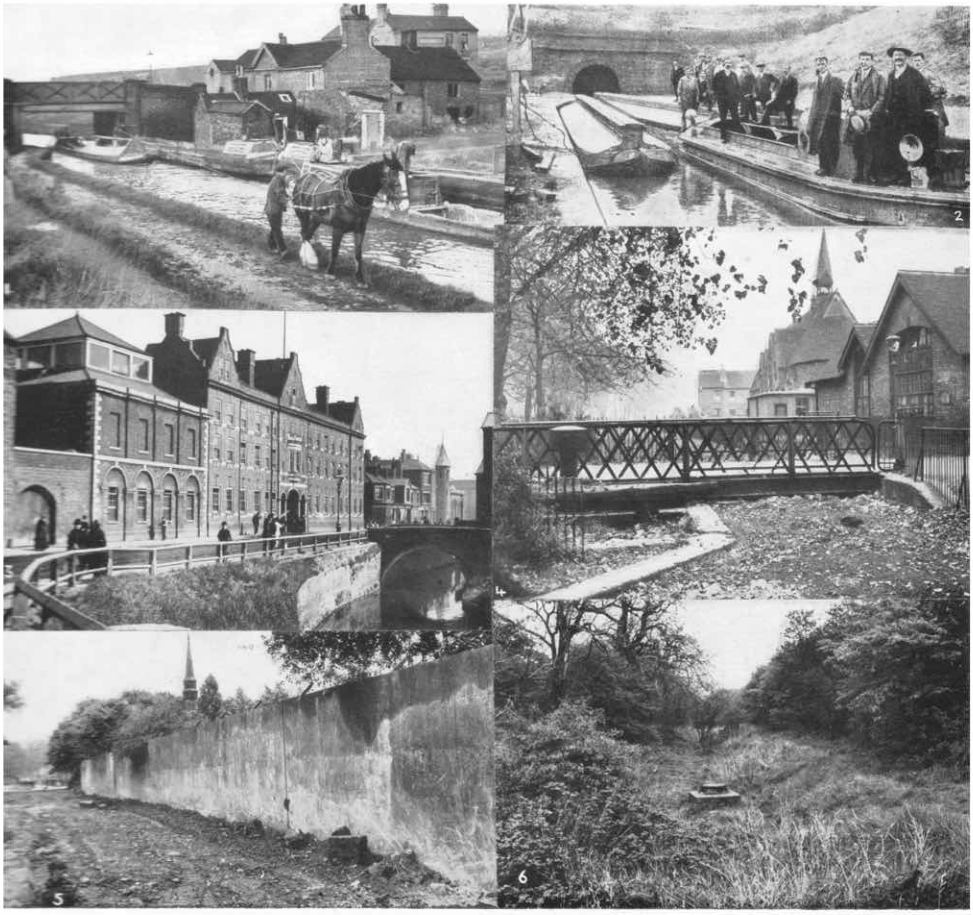
Indeed, the first half of the seventeenth century was an important period in the formation of the roads as we know them. Leek Road from Stoke, through Joiners' Square, at the foot of Lichfield Street, was constructed about the year 1850. It was joined by the important road from Fenton to Hanley (which is now known as Victoria Road), made about the year 1843.

The Leek New Road, with the Holden Bridge viaduct, was planned in 1839. A large stone arch supported the old Holden viaduct, under which traffic passed on the new road. The bridge was, however, too narrow and, when the road was improved, a new viaduct was built at a cost of £20,000 and opened on Monday, July 14th, 1930, by Mrs. J. W. Oakes, wife of the vice-chairman of the City Highways Committee.

High Lane, running over the viaduct, was a turnpike road in 1770. In 1832, an extension of this road was made and reconstructed, from Sneyd Green to Hanley.

Very many of the Potteries' roads have, of course, grown out of, and often take the course of, many of the older roads and lanes and these have continually been improved up to the present day. Stoke Road is an example of this gradual improvement from a deep cutting, lined with hawthorn hedges. Much of this road, especially that in the region of Shelton Church, was cut, in 1836, by the sixteen inmates of the Stoke Workhouse, which was situated in Penkhull and between which they would walk to and from their work. By Shelton Church, the doorways of the houses opposite, now approached by several stone steps, were on a line with the old road, when the work was carried out. Although these houses are still standing at the time of writing, they are likely to be demolished very soon. However, the level of the churchyard presents a clear picture of the height of the road up to 1836. It is appropriate to mention that a number of old cottages, with small front gardens, became empty and were demolished during the period 1955-1956. Much of this site was levelled and a large garage erected and opened early in 1957.

In Burslem, in the second half of the nineteenth century, improvements continued to be made in the highways. In 1858, a new bridge was erected over the canal, at Longport, at a cost exceeding £1,200. The expense was partly met by the North Staffordshire Railway, which contributed £400. The Burslem Board of Health, acting under the Public Health Act of 1848 and the Local Government Act of 1858, had control and management and were charged with the repairs of the whole of the highways of the district, contributed £400. The remainder of the money was provided by the Trustees of the Lawton, Burslem and Newcastle Turnpike Roads. From this



1. The canal bridge, No. 129, at Brownhills, which marks the approximate site where the ceremony inaugurating the canal was carried out by Mr. Josiah Wedgwood on July 26th, 1766.
2. Electric towing-barge photographed at Harecastle by Mr. J. Templeman, in July, 1914.
3. The Stoke-Newcastle Canal at Stoke. It contained water until at least 1935.
4. The swing-bridge over the canal by Boothen Church. The old Church Schools in the rear have recently been demolished (1957).
5. A photograph made in 1952 of the Boothen section of the old canal, filled in, previous to being made into gardens.
6. A section of the dried-up canal bed at its nearest point to the Campbell Road at Hanford. Drains, similar to that in the foreground, are still to be seen. Photograph taken in August 1957.

it will be seen that there was considerable goodwill and co-operation between the various authorities. At this same period, the road, by the bridge at Longport, was widened.

Many of the turnpike roads in the district had a footpath and channel, paved with blue dust-bricks and stone. These had been laid and were kept in condition by the local Boards of Health and paid for out of the general rates. At other times, co-operation seemed lacking, for turnpike trustees sometimes altered and lowered the turnpike roads, leaving the footpath and channel untouched so that some parts of the footpaths were actually found to be four feet vertically above the carriageway, a great danger to foot passengers. The Board and Turnpike Trust were also responsible for the widening of Newcastle Street, Burslem, about the year 1872. Some parts of the road had been exceedingly narrow and were described by a Councillor as having 'almost throttled the town.' So, much of the road widening and general improvement took considerable time, for all over the Potteries roads were straggling, with private property jutting out into the road, causing bottlenecks, obstructions, which were often difficult to overcome.

In 1860, Mr. John Ward, of Burslem, allowed his share in a private road between Newcastle Street and Lower Hadderidge to become a public thoroughfare. Mr. Ward gave this portion of the road and, in agreement with other owners, the road was opened. At Longport, near to the Parsonage, Mr. Davenport had agreed to the road being made a uniform width of thirty-six feet and was prepared to sell the land he owned for the purpose. Nile Street was also improved, at this date, by the co-operation of a private land owner. Likewise, the Lawton, Burslem and Newcastle Turnpike Trust widened the road at Brownhills, a Mr. H. H. Williamson having given the land required for the improvement. At Etruria, the old bridge, of Josiah Wedgwood's day, was altered late in 1864 and the bridge widened. Towards this, the Leek Turnpike Trust contributed £30.

Between Hanley and Cobridge, the railway, which had been constructed early in 1853 by Lord Granville, from his Shelton bar-iron works, across the Newcastle and Leek turnpike trust road above the New Hall toll gate (at Vale Place, Hanley), was made safe.

Lord Granville claimed a right as lessee of the manorial rights of the Duchy of Lancaster, to construct the railway in question across the turnpike road. Lord Granville was requested to erect a house and a gate on each side of the road with a person in attendance. The same regulations were to be carried out at the other crossings belonging to the ironworks and the tram-roads crossing Hope Street, Boothen Lane and Great York Street to be taken up.

Accidents did happen occasionally, in connection with another rail-crossing, owned by Lord Granville. One singular accident, which proved fatal, is worth recording.

In the evening of Thursday, September 21st, 1865, two men, Isaac Rider, a farmer, of High Carr, near Tunstall, and David Bourne, a butcher, of Tunstall, were returning from Newcastle Wakes on horseback. At about half-past eight they were galloping at full speed along Etruria Road, near Hanley, while, at the same time, some trucks were crossing the road on the tramway connecting Lord Granville's ironworks with some collieries on the opposite side of the road (slightly above the present Weir's

glass works) and Rider's horse ran into them. Rider was thrown to the ground and, on being picked up by a forgeman, was found to be already dead, having broken both his neck and left arm. The horse was only slightly injured. David Bourne also received severe injuries.

Another curious accident occurred in June, 1868, in Stoke Road. During the Sunday evening, of the 28th of June, a lad named Thomas Lea, aged fourteen years, was riding on a donkey, led by the boy's father, between the Shelton toll gate (Cauldon Road) and the railway bridge, when a trap, being driven in the same direction, knocked the donkey down. The wheel, passing over the boy's head, caused a compound fracture of the skull. He was conveyed to the North Staffordshire Infirmary in a cab where he died on August 2nd. The blame was placed on the driver of the trap, the boy's father saying that all three were thrown to the ground. One of the wheels passed over him and one over his son. A verdict of accidental death was returned.

Accidents, however, do not stop progress, but progress is often frowned upon. Thus, 'Pro Bono Publico' wrote indignantly to the Editor of the Staffordshire Advertiser, in January, 1867, declaring that, 'there are some things in this world past all bearing,' and, 'imploring the use of your valuable paper to assist in the putting down one of the most outrageous and dangerous nuisances, of which I am aware.'

'We were driving along a country road, near the Potteries; it was quite dusk, when we came upon a steam plough, which was being conveyed by the engine alone, without any horses. The noise it made was terrific, enough to frighten the quietest horse in the kingdom, to say nothing of the fact that it took up the whole road. Of course, I immediately jumped out and called to the men to stop. With great difficulty, we got past them and I resumed my seat. No sooner had I done so, however, than we heard another engine puffing and blowing in a most frantic manner. Again, I jumped out and we found this engine stationary, blocking the whole of the road, and here we had to remain, drawn up into a corner out of the way, until it pleased them to move their monstrous machine so that we might pass.

'Now, Sir, consider what the consequences might have been if, instead of a quiet bay, I had been driving a spirited horse. Without a doubt, the horse and carriage would have speedily disappeared over the hedge and my precious freight would have had broken limbs, if not broken necks. Or, what might not have happened had the lady been driving herself? I am informed, on good authority, that it is against the law to use steam engines on the road at all; if, therefore, their use is not discontinued at once, I shall take an early opportunity of testing the legality of the actions of the company to which, I am told, these steam ploughs belong.'

In January, 1883, just sixteen years later, at a meeting of the Burslem Highways Commitee, shouts of laughter and cries of 'Order!' greeted the proposal to do away with the horse-roller used for road repairing and purchase a 'Steam-Roller' . . . 'For Councillor Vernon, who opposed the spending of money on any other committee, but that with which he was connected, intended to oppose the purchase of a steam-roller.' (Laughter). Mr. Hales: 'I must object to these remarks; they are most personal.' (Laughter). Mr. Vernon said: 'He could allow for them, seeing the quarter

whence they came. He put it down to ignorance.' ('Order!'). Mr. Derry, continuing, said, 'The Highways Committee had not come to a conclusion that the roller was required in a hasty manner, but had had the matter before them for over twelve months.'

The horse roller was declared useless, the horse's feet doing more harm to the road as there was good done by a steam-roller.

Hanley, Stoke and Longton were interested, too. In fact, Hanley had one and Longton and Stoke wanted to borrow it! The answer from Hanley was that their steam-roller had sufficient work to keep it going for three years! Councillor Parker was in favour of making the purchase and said, 'he had been informed by a member of the Hanley Town Council that the steam-roller was a very valuable acquisition.' Councillor Hales asked for the name of the informant, to which Mr. Parker indignantly replied that he had lived long enough in the town to be believed. Mr. Hales said, 'of course, there were always two parties on a Town Council,' to which Councillor Derry remarked that, 'there were certainly two on the Burslem Town Council.' Mr. Vernon said, 'He had been informed just in the opposite direction.' The Surveyor was then appealed to.

I suggest to the reader that this true picture of life in the 'Mother Town' of Burslem might well have come straight out of one of Arnold Bennett's novels on the five towns and how very true were his descriptions.

Trinity Street, now the main road leading out of Hanley towards Newcastle, was, in 1832, a private road, down which an iron railway, or slip-way, ran to the adjacent canal wharf at Etruria Vale.

The line was constructed by the Trent and Mersey Canal Company and started in what was known as the Foundry Fields, so called from the existence of a small foundry, built about the year 1810. The road, which started at Miles Bank, Hanley, with its iron tracks, passed down the south side of the present road, across Marsh Street (then in existence), behind, what became the first Hanley Railway Station, the booking hall and entrance of which can still be seen about one hundred feet below Marsh Street and below the present telephone exchange. From here, it ran roughly parallel with the present railway through the fields, after which the metal railway wound round in front of the 'Wood Hill,' where stood the second Infirmary building, then through a once pretty vale, called Tinker's Clough, over a portion of land, that is Etruria Vale Road, to terminate at the Etruria Canal Wharf, in the hollow near the toll gate in Etruria Vale. To keep the town section of the rail as private as possible, a stone wall, about four feet high, was erected on each side of the rails and the road was flagged on the south side of the wall.

All heavy goods went by waggon and carts from Hanley to the wharf by this 'road railway.' These carts and waggons were drawn by horses and donkeys, which were usually left in the fields surrounding the road during the night. At least some of the stone wall, which later became Trinity Street, named after Trinity Church or Chapel, was reported to be still standing in 1864.

In March, 1852, the road was still privately owned, but it was reported by the Clerk to the Commissioners, under the 'Watching and Lighting Acts,' at their annual meeting at the Hanley Town Hall, that the Railway Company were willing to take

up the iron tram-way, between Miles Bank and Marsh Street, and substitute for it a tram-way of stone blocks. The road would then be thrown open to the public, subject to regulations for preserving the Company's right of property.

This concession was considered a great boon and a deputation waited on the Railway Company to discuss the necessary arrangements

In December, 1881, the annual report by the Borough Surveyor of Hanley, Mr. Joseph Lobley, declared that, 'the abolition of the Turnpike Roads has not increased the work of this department, as the Council has, for many years past, undertaken the construction and maintenance of the footways. . . . . Taking the three categories together, dis-turnpiked roads, town streets and streets adopted during the last ten years, there are: 22 miles, 544 yards having two footways; 5 miles, 217 yards having only one and 6 miles not adjoining adopted carriage-ways, making a total of 55 miles, 1,305 yards. There are 530 yards of main road having no constructed footpath at all and 910 yards of streets, such as Back John Street, not, as a rule, requiring any, being, for the most part, paved carriage-ways of narrow widths. Included, in the above measurements, there are 6 miles of footways along main roads, which are merely ashed, expensive to maintain, particularly in frosty weather.'

In 1871, in Hanley, the highways, repairable by the ratepayers, consisted of 136 streets, or roads, measuring 11 miles, 1,527 yards.

Since 1871, the whole of the turnpike roads became repairable by the local councils. In Hanley, between 1871 and 1881, these consisted of 24 streets, or roads, measuring 9 miles, 1,342 yards.

Between 1871 and 1881, the number of new streets which have been adopted by the resolutions of the Hanley Council, included those in which the works have been completed, was 65, measuring 6 miles, 1,092 yards. To these was added 31 streets, measuring 2 miles, 662 yards, taken over by agreement with their owners. At this period, the total highways repairable by the ratepayers was 256 streets, or roads, measuring 30 miles, 1,103 yards. There also were 64 private streets still in existence, measuring 4 miles, 1,341 yards. The cost of repairing Hanley roads was nearly £4,000 per annum. This was a typical example of one of the six towns, which means that the work of road repair was becoming an increasingly heavy burden to the ratepayers. It was, therefore, not surprising that, in 1880, Mr. Lobley 'advocated the purchase of a steam-roller' paradoxically, to ease this crushing burden.

Stoke eased their 'burden' by purchasing a steam-roller early in 1885. This had received considerable support at a meeting of the Highway and Lighting Committee of the Stoke Town Council, in November, 1884. At that same meeting, the Surveyor had also been instructed to post notices declaring Duke Street (now Allison Street) and Slaney Street, previously private, to be public highways in compliance with the Public Health Act of 1875.

The steam-roller was gradually gaining in popularity and was no longer a source of amusement in council. Let us take a look at the lot of the road repairer in the towns of Stoke-upon-Trent, about the year 1890. Much of the material for repairing roads was stone, often brought in from nearby waste ground and broken by hand at the roadside. Men were employed with rakes pushing and pulling the broken stones into the ruts and tracks and traffic was compelled to pass over this rough surface.

Sand was then applied, after which gravel or flints would be scattered to form the final metalled surface. The steam-roller took much of the heavy work from the hands of the 'navvies.' The stones were rolled and slurried in with mud and water to form a kind of 'cement' with the sand. This was often the cause of clouds of dust occasioned by traffic and the early motor car. To improve this condition, the surface was coated with gas tar early in the twentieth century and later the stone itself was pre-treated before spreading and rolling. Bitumen and concrete were later used and to-day we have many miles of our roads laid in concrete, or concrete reinforced with steel, over which asphalt is placed.

To trace the history of the roads in the Potteries to the present day would in itself be a major work, calling for specialised knowledge, and would be a book by the expert for the expert. One can, therefore, often only touch on some of the more important roads.

Important development took place on the main London Road through Hanford, in the Summer of 1922. This road, at this date, presented, despite the tram-lines laid in cobble-stone, a most pleasant picture of a fairly large country lane, quite well wooded on the north-west.

A by-pass road was made to take the traffic during construction, the work being carried out under the direction of Mr. A. Burton, the Borough Surveyor. From the 'Black Lion Inn' to the Hanford bridge the scene was quite rural and open and not the least picturesque part of the road was the bridge crossing the Newcastle-under-Lyme Canal, a branch from the Trent and Mersey Canal, which travelled parallel to the London Road, through Stoke and Oakhill. Here, at Trent Vale, the bridge, which spanned the canal, was only twenty-two feet wide: a great danger to the increasing traffic, especially as steep gradients approached the bridge on either side and particularly on the south side, so much so that drivers of vehicles travelling to Newcastle were unable to see advancing traffic on the other side of the bridge.

The bridge, with brick-built sides, stood exactly one hundred and fifty yards from the 'Black Lion Inn' and from this one may trace the exact position and picture the scene in 1922.

As the canal had been abandoned from Trent Vale to Newcastle, the reconstruction scheme was now possible. There were many difficulties. Gas and water mains, together with overhead and underground telegraph and electric cables were effected. The canal was filled in, at this point, to a new level and the road on the south side of the bridge was widened. Shortly afterwards, the road at Hanford and also Hanford bridge were widened and improved.

Considerable improvement was made about the year 1900, when Trentham Road, Penkhull, was widened and new streets made at Oakhill Park and much of the work was done with the assistance of the new steam-rollers, the drivers of which were paid 27/- to 30/- per week. Road 'gangers' were paid 21/- to 22/- per week.

The early 1920's were difficult years for the residents of the six towns, occasioned by considerable unemployment and many schemes were put forward to ease this situation. The Corporation of Stoke-on-Trent made a number of propositions. One of these, started in March, 1922, was the extension of Campbell Road, Stoke, on which approximately two hundred and forty men were employed. Sixty men were

employed at Normacot in laying out a new recreation ground. The extension of Queen's Avenue, Tunstall, employed forty men.

In 1923, the Corporation proposed two groups of relief work in which drainage, sewerage and street widening improvements were to form an important part of the scheme.

The largest of the undertakings was to be the re-drainage of the Florence area in Longton at a cost of £9,500 and employing some forty men for about eight months. A considerable sum was to be spent on 'Carriageway Paving,' in the Stoke Road and Snow Hill, Shelton, in Trinity Street, Hanley, Moorland Road, Burslem (from the Market Place to Park Road). The level of Abbey Road, Hanley (adjoining Locketts Smithy) was to be raised; a portion of Waterloo Road, Burslem, was to be widened; £5,000 was to be spent on the foundation of Werrington Road, Bucknall, and on other smaller improvements.

In January, 1923, work was well in progress on the widening of the Cobridge Road. This was another successful effort to find work for unemployed men. The width of the road was almost doubled from a point one hundred and fifty yards above Brook Street to Lord Street, Etruria, a total length of seven hundred and fifty yards, at a cost of about £18,000, fifty per cent. of which was received by the Corporation from the Ministry of Transport. It was a scheme on which fifty men were employed for a period of six months. The width of this road had only previously been from twenty-seven feet to thirty-five feet, with only a narrow footpath. It was widened to fifty-five feet, with footpaths on either side and, in addition, the gradient was improved.

In this same year, 1923, police traffic control reached a stage of considerable organisation. In December, 1928, ' . . . in view of the enormous increase in road traffic, a new system of police signals (by hand) for traffic came into force in Stoke-on-Trent.' It was not, however, until 1952 that the 'Zebra' crossing appeared in the Potteries for the further safety of the pedestrians. These crossings were more easily visible and a considerable improvement on the old type and gave the driver of the vehicle a much better chance of pulling up.

It may be said that the vast number of roads and streets in the City of Stoke-on-Trent had reached a fair standard by the turn of the twentieth century, despite mining subsidence, which takes such toll of the roads and buildings of the city. The main problem, that of unmade private roads on new building estates, has been and is being tackled with success. Some of these roads were in an appalling state and they compare well with the hollow ways of the eighteenth century. The roads were pitted from end to end with craters varying in width from about two feet to nine feet and varying depths. In winter, or after rain, the roads presented an extraordinary sight: a vista of tiny lakes, difficult to avoid in daytime and almost impassable at night. One often, literally, stepped from the front gates into a quagmire or pool. In 1954, there were four hundred and sixty-four private streets unmade in the City of Stoke-on-Trent. At this date, sixty-one were being made up, one hundred and thirty having been dealt with since 1943.

These roads caused considerable hardship, because residents had to pay for the road work, as far as the middle of the carriage-way, at a cost varying from £1-11-0 per foot to £2-5-0 per foot. The owner would, therefore, be presented with a bill

between £20 and £60.

The Private Street Works Act, of 1892, states that, 'the urban authority, if they think fit, may, at any time, resolve to contribute the whole or a portion of the expenses of any private Street Works.'

In practice, this is rarely done except in rare cases where the Corporation wishes to widen the road. In difficult cases, the Corporation allows payment to be spread over a period of years.

Road Transport

Having traced some of the history of the rivers and the early roads throughout the towns of the Potteries, one turns to the all important transport on those roads—that of the coach.

The stage-coach, with its fine team of horses, travelling at what was, for the period, a high speed, will ever produce a romantic picture in the human mind. The cry of the Post-horn, as it echoes in the distance, is a fantasy of sound that, once heard, is not easily forgotten.

Records show that stage-coaches were in use as early as 1646, but it was at a much later date when their use became general on the country roads of England.

In 1657, stage-coaches were running between London and Chester and the route is said to have passed through Staffordshire, via Lichfield, Stone and Darlaston.

In 1785, the first mail coach service had been established between London and Liverpool, Liverpool and Manchester and Nottingham and Leeds. Mail-coach authorities insisted on first class roads, in 'perfect repair,' and this would be one of the reasons why the Potteries were not even served by coach for a considerable period; for, in the eighteenth and early nineteenth centuries, the Potteries had no post office or postmaster and Burslem still had to rely on Newcastle for delivery of its letters, whilst Longton was served by Stone.

The first intimation, in my possession, of coaches in the Potteries is in the form of a newspaper cutting of Saturday, March 20th, 1813. It relates to the letting of,

'All those well known Premises, called the "King's Head Inn," situate in Shelton, in the Staffordshire Potteries, containing one wholesale and retail Spirituous Liquor Shop, with a convenient Bar, two large Parlours, large House-place, all cellar'd under, five Bed-rooms, a convenient back Kitchen, large Brewhouse, good Stabling and convenient Yard. The situation is not to be exceeded throughout the whole Potteries, being surrounded with public roads and a populous neighbourhood and it is the only Inn in Shelton, which the London and Liverpool Coaches stop at every day.'

This old and important hostelry, demolished in recent years, stood at the Broad Street end of Piccadilly, Hanley, on the south side, now occupied by an open space and public gardens. The Inn, presenting a quiet and respectable appearance, had, of course, lost all its old world coaching importance. The second, from a cutting relating to the 'Swan Inn, Hanley, in the Staffordshire Potteries,' dated September 29th, 1813, which records that, 'R. Stockley begs leave to return his sincere acknowledgment to his friends and the public for the warm support he has met with in the Posting business since he entered upon the above house and respectfully inform them that, to meet the very flattering increase he daily experiences, he has

just launched a second Post Chaise. He now hopes to be enabled to accommodate the district of the Potteries and the vicinity, in a manner superior to what they have, hitherto, been accustomed to, which, he trusts, will merit a continuance of the patronage and support.'

Another advertisement, also from the Potteries Mercury newspaper, dated Wednesday, May 12th, 1824, gives details of the 'Pottery, Stone, Stafford, Wolverhampton, Birmingham and Leek Safety Coach.'

This coach ran every Tuesday, Thursday and Saturday mornings from the King's Head, Shelton, at seven; Wheat Sheaf, Stoke, a quarter-past seven; White Lion, Lane End (Longton), a quarter to eight; King's Arms, Stone, nine o'clock, etc.

Joseph West, the owner, also ran coaches from The King's Head, Shelton, through Burslem, to Leek, every Wednesday morning. The 'Safety' left the King's Head at eight; the George and Dragon, Burslem, at a quarter-past eight, arriving at Leek at ten o'clock.

The coach returned from Leek the same day from the Red Lion at half-past four in the afternoon, arriving at Burslem at a quarter-past six and at the King's Head, Shelton at half-past six.

The table of fares is most interesting:

Shelton to Lane End ...	1/-	Shelton to Stone ...	2/6
Shelton to Stafford	4/-	Shelton to Birmingham	9/6
and from the Potteries to Leek	2/6.		

The George and Dragon Inn, Burslem, stood on the site of the present George Hotel.

Ten years later, in 1834, a complete coaching service was running through the Potteries. At Stoke, the London, Liverpool and Derby coaches called at the Wheat Sheaf Inn, still to be seen at Campbell Place, in the High Street, Stoke (at the point where the road forks right for Trentham).

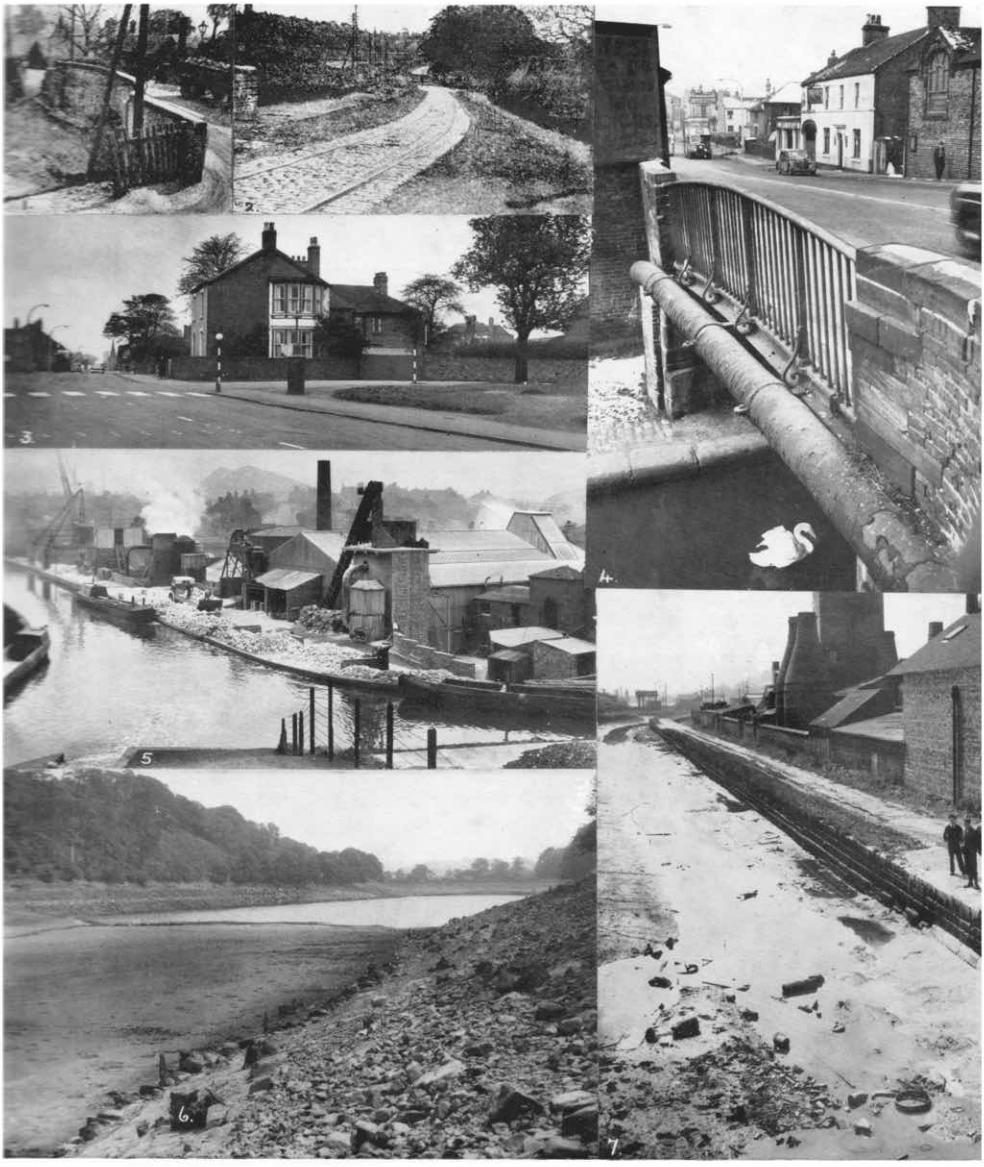
In the Mother Town of Burslem, coaches left from the Marquis of Granby Inn, situated in St. John's Square.

These coaches had picturesque names. The 'Express' left for London at half-past ten at night and to Liverpool at two o'clock in the afternoon daily. The 'Red Rover' went to London at half-past three in the afternoon daily, except Monday, and to Liverpool at six in the morning daily, except Tuesday. The 'Potter' left Manchester at eight in the morning returning at nine o'clock in the evening daily, except Sunday. From the Legs of Man Inn, also at Burslem, the coach, 'Hark Forward,' left for Birmingham, via Stoke, Lane End (Longton), Stafford and Wolverhampton, at seven o'clock in the morning daily, except Sunday, returning at eleven o'clock each night.

The coaches from Burslem (some would probably pass through Wedgwood Place) continued left along the High Street, now Greenhead Street, at the top of the present Scotia Road, via the Sytch, to Brownhills, etc., calling at the Sneyd Arms and Swan Inn, Tunstall.

At Longton, the 'Red Rover,' the 'Hark Forward,' the 'Independent' and the 'Potter' all called at the Eagle Inn, whilst the 'Hero' left the Crown and Anchor Inn for Newcastle every Monday, Wednesday and Friday at 4.30 p.m.

Although not listed at this particular date, coaches at approximately this period



For information see overleaf

1. Narrow bridge over the Stoke to Newcastle Canal at Trent Vale, just previous to demolition and fiilling in, in July, 1922.

2. Corporation road-widening scheme at Trent Vale and towards Hanford in 1922. The far end of the little canal bridge can be seen on the left and assists in the orientation of the picture.

3. The scene 1957. Pedestrian-crossing marks the site of the canal and bridge. Trent Vale Church-spire is just visible.

4. Canal bridge by Whieldon Road, Stoke, in March, 1955, previous to extensive widening during 1956-7.

5. Scene from the canal bridge, Bedford Street, Shelton, 1956.

6. Rudyard Lake, photographed in September, 1933, during the drought of that year. The 163-year-old reservoir, or lake, itself fed by the River Dane, is a feeder to the Trent and Mersey Canal and its branches. Today, covering over 160 acres, it is almost two miles long and holds in the region of 786,000 gallons of water. This lake brings to mind another lake once used as a feeder for steam locomotives on the railway at Stoke Station. Known as the North Stafford Hotel Lake it was situated between the hotel and the Leek Road at Stoke. It was a shallow but comparatively large sheet of water with a small island in the centre. A punt was provided for use by residents at the hotel who were able to enjoy a pleasant hour, fishing. In November and December, 1959, the lake was drained and an extensive new post office for Stoke-on-Trent is to be built on the site.

7. Canal by Twyford's, Cliffe Vale, during the summer of 1955, emptied for cleansing.

would call at the main coaching inns at Hanley: The Swan Inn, in the Market Place (on which the present Market Hall stands) and the King's Head, to which reference has already been made.

The records of the District Bank, Hanley, provide an interesting sidelight on early coaching in the Potteries, when the manager, Mr. John Stupart, felt that there was great risk of theft in allowing cash notes and bills, in transit to and from the Head Office in Manchester, being given to the charge of the 'Potter's Coach.' The Local Board was also dissatisfied with the irregularity which existed in the hours of departure and arrival of the coach.

This concern was apparently justified, for, in 1840, the Hanley branch of the Manchester and Liverpool District Banking Company 'sustained a heavy and vexatious loss.' A box, containing £5,000 in gold and bank notes, was stolen from the 'Potter,' on its way from the Head Office to Hanley, after which a special messenger was employed to take money over those roads which were considered by no means safe during the winter months. Here, then, was an actual local case of highway robbery.

To-day, the story of the highwayman is something of a romantic legend. Much more care was taken in the case of His Majesty's Mail Coaches. These had guards, armed with blunderbuss, pistol and cutlass. The scarlet-coated guards had to be men of high character, carrying a doctor's certificate of good health. Specially trained for their duties of protecting the coach and mail at all costs, they had to be prepared to sacrifice even their life if necessary. During a severe winter, about the year 1835, one Royal Mail Coach ran into heavy snow drifts and was brought to a halt on a desolate stretch of road. In the darkness of the night, by the light of the guttering coach lamps, almost put out by the gale, the guard dismounted and attempted to continue on foot, with the mail bag strapped to him, to the nearest village or town. It was always the policy to get the mail through if not the coach. The poor man was found next morning frozen to death. He had done his duty and small wonder that these guards, wearing Royal Livery, were senior to coachmen.

Speed was essential to these mail coaches, which were exempt from toll on turnpike roads by an Act of 1785, and woebetide the toll-keeper, who, hearing the increasing volume of sound of approaching hooves, or seeing the yellow glow from the great lanterns of the coach, did not have his turnpike wide open. He was also liable to a fine for this offence.

The Turnpike Trusts resented the passing of the mail coach, toll free, for they declared that, 'the great weight, narrow wheels and high velocity of the coaches did much damage to the roads over which they passed repeatedly.' In a report, published in 1811 by a committee, on the Mail Coach Exemptions, it was estimated that toll duties, from which mail coaches were exempted, were over £50,000. Toll was, however, paid by them on Sunday duty. The mail coach was considered to be the only safe coach and was seldom attacked, but the 'safety coach' of the Potteries, or indeed any other privately run coach, travelled at considerable risk. Generally, the coaches were drawn by four horses, in pairs.

John Palmer, a Bristol theatre manager, who lived in Bath, was responsible for a scheme, which came into operation in 1784, for taking the postal mail by mail coach, which revolutionised the speed of delivery of mail. The coaches were light

weight, being about eighteen hundredweight, unloaded. They carried the royal arms in gold upon the doors of the carriages, which were painted in the same colours as the King's carriages, black and maroon, with red under-carriage and wheels.

The mail coach, as already stated, kept to the main roads and it was demanded that these roads be kept in good condition, which was not without effect. Other coaches used these roads, but if they turned off them it was at their peril. It was not surprising, therefore, that private carriages, the prerogative of the rich, availed their owners little in the way of comfort and one had to choose the better roads, or, if need be, to travel over rough ground. For example, in Hanley, up to about the year 1800, 'Piccadilly' was a boggy field, with here and there a derelict coal shaft, the pit mouth fenced round with 'creaking railings,' a danger to the unwary traveller. This amazing picture, compared with the view to-day, was completed by a number of tall trees, in which rooks had built their nests! 'Broad Street' was a continuation of the marshy fields, with only a foot track as a 'road,' the highway to Stoke being in another direction, winding round the south side of Shelton, past where Shelton Church now stands. From thence it went by the ancient Shelton Old Hall, down Cleveland Passage (which may still be seen), by the side of the Bell and Bear Inn, which, in those days, stood considerably further back from the present building and so on to Stoke.

Such highways made a journey on wheels a hazardous affair. Small wonder then that Arthur Young, a well known agriculturalist (1741-1820), on his way to Burslem declared, 'I was forced to hire two men in one place to support my chaise from over-throwing in turning out for a cart of goods overthrown and almost buried.' He advised, 'all travellers to avoid this terrible country, which must either dislocate your bones with broken pavements, or bury them in muddy sand.'

In Stoke, as elsewhere, one paid for the privilege of running carriages, coaches, landau, chaise, or any vehicle with four wheels drawn by one or more horses or mules.

In 1865, the annual payment for this privilege was £3-10-0 per annum. Where drawn by one horse or mule, the tax was £2. For carriages of four wheels, each of less diameter than thirty inches, drawn by ponies or mules, of not more than thirteen hands high, £1-15-0. If drawn by one pony or mule, the charge was £1. Carriages, with less than four wheels, drawn by two or more horses or mules, paid £2; with one horse or mule 15/- and with one pony or mule, not exceeding thirteen hands in height, 10/-. Where kept solely for the purpose of hire, without horses, one half of the above duties were payable. Carriers' carts, etc., of four wheels, paid £2-6-8 per annum; with less than four wheels, £1-6-8. Exemptions were allowed to Hackney Carriages, stage carriages, licensed to convey passengers, and vehicles kept entirely for purposes of business. A duty was charged of £1 was every license to let Hackney carriages and for every Hackney carriage, licensed for use every day of the week, 7/-, and for every day except Sundays, 6/- per week. Horses used for riding on the highway were also taxed. Also taxable was Hair Powder and every person who used it paid £1-3-6 annually. The use of Hair Powder was a distinction merited mostly by the gentry of the eighteenth and nineteenth centuries.

For servant men, of eighteen years and over, masters had to pay a yearly tax of £1-1-0, but, if they were under eighteen years of age, only 10/6 per annum.

In addition to all this, any person keeping a coach or other carriage chargeable

with the duty at the rate of £3-10-0 and using, or wearing, any armorial bearing had to pay, annually, £2-12-9. Any other person, using armorial bearings, paid a tax of 13/2 per annum.

Despite the seemingly heavy charge paid by the 'gentry' in taxes for the privilege of keeping their own brougham, landau, victoria carriage or dog cart, together with one or more horses and coachmen, the lot of the coachman was one of hard work and long hours. Consider the interesting life of Samuel Hill, aged 83, at the time of writing, in June, 1957, who started work at the age of eleven, as coachman for fifteen years to a well known Potteries doctor of the period. Mr. Hill, whose working week consisted of seven days and on duty at all times, rose at 6 a.m. and rarely finished his duties until 7 p.m. He attended to the three horses kept by the doctor, one of which was permanently kept at the doctor's residence. When driving his master he would be smartly dressed in a uniform of breeches, leggings, frock-type coat and a black top hat. High dog cart, brougham or landau was used according to the weather. For most of the years in the doctor's service, Mr. and Mrs. Hill lived in their own house in Shelton and not at the house in Lancaster Road, near the boundary of Newcastle and Stoke-on-Trent, where the doctor resided. He had, therefore, to pay rent, clothe his wife, himself and four children on 17/- a week! After many years' service, Mr. Hill asked for a rise. The doctor agreed to consider the matter and, the following week, Mr. Hill got a rise—one shilling. At another period, Mr. Hill worked in a Longton pottery manufactory. To do this, he walked daily from his home to Longton. He also drove one of the first motor cars in the district for the same doctor. It was the poorly paid work that forced Mr. Hill to open his own business in Bucknall New Road, Hanley.

Hanley had its own coach building works and, as late as 1888, the works, in Foundry Street, were being extended. It was owned by Mr. A. T. Poole. Carriages had been made in Hanley since 1858. Mr. Enoch Poole was the original maker and not related to Mr. A. T. Poole. The firm made gigs, dog-carts, hansom cabs and carriages and were the only firm to make steam carriages in the Potteries. In connection with these carriages, the inventions and improvements made by Mr. H. S. M. Bath, who joined the firm in 1871, were considered very advanced for the period. Awards were secured at many of the agricultural shows, including the show at Burslem. Everything was made at the Foundry Street works with the exception of lamps and axles. The Patent Balance Hansom Cab, emanating from this firm in Hanley, was known throughout the country. These cabs could, by taking out the back seat, be driven from inside as well as from the outside and could be fitted for one or a pair of horses. In July, 1896, the site of this carriage works was about to be vacated by Mr. Poole and the ground utilised for 'the erection of a new place of entertainment,' which became known as the Grand Theatre. The carriage works was transferred to larger premises in Mill Street, immediately below Hanley station. The new works was a two-storied building, covering an area of over three thousand square yards with a further five thousand available for extensions. At this time, the firm were considering making auto-cars, 'should they ever become popular enough to create any local demand.' Another special branch, 'allowed for the fitting of all classes of rubber tyres, for which there is an increasing demand on light driving vehicles.'

The hansom cab played an important part in the life of the average man in the six towns of the Potteries and was, at one period, the only form of personal transport available to him. The hansom cab had usually two wheels, that of another variety, having four wheels, was known as a 'Growler.'

A mid-nineteenth century reference to the increasing need of local transport was made in Hanley and Burslem, when, in September, 1853, 'application was made to the board requesting them to consider the desirability of establishing a cab stand for Burslem.' The question was referred to the Improvement Committee, who prepared a series of regulations and suggested a memorial to the Board of Inland Revenue. The Local Board adopted the suggestion and obtained the authority of the Board of Inland Revenue for the establishment of a stand. Mr. Whittle, of the New Inn, put on a cab, the success of which was followed by his providing a second cab.

At Hanley, in December of the same year, the Hanley and Shelton Commissioners, 'in an endeavour to supply, to some extent at least, a long felt want in this district of Hackney Cabs at a reasonable rate of hire, have authorised two cab stands, one near Market Terrace, and another opposite the Albion Inn.'

As the years passed, more and more hansom cabs were to be seen on the roads of the Potteries. Regulations were drawn up by the various Town Councils of the six towns. In Hanley, in April, 1870, it was decided that the driver of a cab had, 'To give a ticket to the passenger entering his cab and is to produce a table of fares whenever requested to do so. The cabs and horses are to be kept in good condition and lamps are always to be ready for use when required. When disengaged, a flag, with the words, "For Hire," is to be hoisted on the cab. The driver is always to have a check string in his hand when driving.' A list of fares, similar to those quoted in this chapter, were to be charged. 'Luggage, up to one hundredweight, is to be carried free of charge. Distance is to be counted from the cab stand, the post office being taken as the centre of the town. The driver is to produce a licence when required.'

Stands were occupied from 8 a.m. to 8 p.m., between May and September, and from 9.30 a.m. to 6 p.m. during the rest of the year, each cab to change its stand weekly.

When hired by time, the average rate of travelling to be six miles per hour. The cab regulations of thirty towns had been consulted before deciding on the above regulations.

In October, 1881, at Burslem, it was recommended that the cabs of the Borough be fixed as follows:

'Two in St. John's Square, two in Swan Square and one at the Loop Line Station, the remainder in the Market Place.'

A 'Cabbie' liked a good fare and, no doubt, a good tip. Cab-keeping, however, was far from being a life of plenty. It was a question of waiting at all hours and in all weathers, with some cab stands being better patronised than others.

One is not altogether surprised to learn that, in May, 1881, Mr. Pugh, of Hanley, who had licences for three cabs, went bankrupt and that his cabs had to be taken over by Mr. Frederick Hall. This had caused trouble with the police. The Chief Constable, Mr. Windle, had declared, 'Mr. Hall refused to bring his cabs to the

Market Square stand, when it really was his turn, instead of which he turned on to the back stand at the station.' The consequence was that the other cab proprietors of Hanley were unfairly handicapped, besides one of the stands being without a cab for a whole week. Mr. Hall had been summoned and fined for this offence. The Chief Constable had been in a dilemma: was he to keep summoning Mr. Hall, or not? Whereupon, no doubt, the members of the watch committee gave the matter their earnest consideration, for one of them remarked that, 'A cab proprietor had told that he had been on the Market Square stand for two days and never taken a fare.'

The Mayor (Mr. J. Bromley) said that, 'It seemed to him quite natural for the cabs to go to the place where there was most business. It was resolved to try Mr. Hall another month and not to summons him during that time. One felt that, perhaps, Mr. Fred. Hall was something of a local character, for, in November, 1881 (the same year) we find that the Inspector of hackney carriages was pleased with the carriages plying for hire, which, he said, were, 'generally clean and the by-laws fairly observed by all, with the exception of Mr. Fred. Hall, who continues to ply for hire with number seven cab on Crown Bank, which causes the other proprietors and drivers to complain.' In council, 'an animated discussion' ensued, during which the Chief Constable stated that the case had been before the magistrates and that Mr. Hall had promised to pay the costs and to obey the requirements of the committee. Mr. Hall had been advised to take the cab to the railway station, but had refused.

At this period, there were stands for fourteen cabs in the Borough of Hanley, six of them on Crown Bank, four on Miles Bank and four in the Market Square. A cabman's shelter stood on Crown Bank, Hanley, and was removed in 1907. It was at one period leased to a man named 'Bob' Marshall. 'Here one could hire a cab, or growler, the fare to Stoke Station being one shilling, plus a tip.'

'A certain Hanley gentleman was owed money by 'Bob' and as he was in the habit of catching a train home, in the afternoon, from Stoke, he would send one of his office apprentices to the cab rank for 'Bob.' 'Bob' did not wish to meet the gentleman concerned, who, naturally enough, declined to pay the cabbie a fare for each run until his debt was settled. The boy was much puzzled for 'Bob' effected not to notice his pleas for a cab and had the greatest difficulty in persuading him to go for his master.'

Accidents and escapes from accidents, caused by private gigs, coaches, with pairs of horses, and hansom cabs, were, by no means, infrequent. One of the most exciting of these occurred early in June, 1860, between Hanley and Stoke. A Mr. Tennant, solicitor of Hanley, was driving his gig to the railway station at Stoke, when, near Mr. Ridgway's Cauldon-place, his horse took fright and ran away. In the road was a boy, with a wheelbarrow, and seeing the great speed at which the horse and gig were approaching him, left his wheelbarrow in the road and jumped over the hedge into a field at the roadside. The horse and gig passed over the wheelbarrow, smashing it to pieces, and then, swerving to the left, dashed furiously upon the footpath, taking the direction for Stoke. On the footpath was the little daughter of a Mr. Rice, who was going to school at Shelton; she was run down and got entangled either in the harness or the gig and was dragged, or carried, for a distance of more than thirty yards, when the horse dashed against the post across the footpath in a line with

the toll-bar (opposite Cauldon Road). The force of the smash broke three of the posts and the gig shafts and threw the little girl ten or twelve yards forward. Almost instantly, she was picked up and taken into a house and a messenger was despatched to Mr. Garner, Surgeon, whose residence was close to hand. Mr. Garner came in a few minutes and, on examining the child, found that no harm had been caused, other than minor skin abrasions. Mr. Tennant and his servant had been thrown out of the gig and one of the wheels had passed over Mr. Tennant's head and shoulder, but, beyond bruises, he had sustained no injury, nor was his servant hurt. The horse, as soon as he had freed himself, rushed at a furious pace towards Stoke and, in taking the turn from Liverpool Road into High Street, scraped the window of a draper's shop. Such was the pace at which the horse travelled that its frantic journey did not end until it reached Fenton, two miles from the scene of the accident. In its fiery progress through Stoke, it scattered people right and left and many had hairbreadth escapes. This accident was regarded as one of the most remarkable in the history of horse-drawn traffic in the Potteries.

In June, 1866, a cabman, named John Williamson, was killed and an inquest held at the Saracen's Head, Hanley. Mr. Williamson, a steady, trustworthy man, was at his cab stand, in the Market Place, Hanley, between 2 p.m. and 3 p.m. on a Thursday afternoon and, having taken the bit out of the horse's mouth, was about to place a nose cap (containing corn) on the animal, when it started off in the direction of Hope Street. Mr. Williamson followed the horse and attempted to stop it, but was thrown down and the horse, as well as the cab, passed over him, injuring him severely about the head and body. Although at once conveyed to the home of Mr. Davies, a surgeon, he died four hours later.

Less tragic was the extraordinary scene, which took place on Saturday, October 26th, 1895, when a pony and trap, owned by a Stoke grocer, was being driven up Lichfield Street, Hanley. On reaching Albion Square, the trap came into collision with a coal cart. The axle was almost torn from the bottom of the trap. The pony bolted down Albion Street, the loose axle and wheels causing the trap to travel in a most erratic manner. Half-way down Albion Street, the driver, Mr. Joseph Martin, was thrown out of the trap and landed on the back of the pony, on which he continued for a short distance: a whirl of arms and legs followed by the lurching trap—a scene fit for the pen of Arnold Bennett—after which he fell from the back of the animal escaping with a severe shaking. The pony continued its career and did not stop until opposite Bethesda Chapel; here, the axle gave way and the wheels were left in the road. The noise of the trap, as it fell upon the road, startled the pony, which, still in its harness, again set off at a gallop down Broad Street, where people fled, warned by the clatter of the hooves and the slithering and bumping of the wheel-less trap. It continued at full speed until it reached Victoria Road, where the road was blocked to traffic by the re-laying of the tram lines. The pony, taking the only clear path—that of the pavement—scraped the wall bordering Shelton Church and, breathless, was finally halted by a lamp post and workmen, at a point opposite to the King's Arms Inn. The pony, although cut about the legs, was not seriously injured and was taken to the Cleveland Stables. The remains of the coaching stables may still be seen at the top of, and to the right of, Cleveland Passage, directly opposite to Grove Lodge,

Shelton. The King's Arms Inn, which had been closed for many years, is, at the time of writing (1957), in the last stage of decay. Within the last year or so, cottages, on the Hanley side of the Inn, have been demolished and a modern garage built. The near future will see the passing of this old Inn, whose silent and empty shell portrays little of a once busy setting.

Accidents, caused by horse-drawn vehicles, were not confined to hansom cabs and an accident that occurred in Hanley, in 1906, is worth putting on record.

The Market Square and Messrs. Pidduck's fine jewellery display window would appear to have held a fatal attraction throughout the years for more than one horse and several human beings, whose sole interest has not been only to break the plate glass windows. The case in question occurred on a Tuesday afternoon, in July, 1906, when the horse of a bread delivery van, startled by the noise of misfires from the engine of an early motor car, bolted down the steep incline of Market Street (now Huntbach Street) at a 'mad rate.' On the corner of New Street and Market Street, it collided with a lamp post, which it carried away bodily, the course of the runaway being unchecked. It was considered a matter of wonder that no one was injured, as it passed the top of Parliament Row. It dashed, said one spectator, into the Market Square, like a racehorse and galloped straight into the window of Messrs. Pidduck's. Silverware, valued at one thousand pounds, was scattered over the pavement amid broken glass. A lady was seen to escape death in front of the window. 'It seemed impossible for her to get away, but, by dodging twice and displaying quite unusual skill in an athletic direction, she got clear.' But for iron window brackets, which bent as though they had been lead, the horse and cart would have been in the shop itself. 'Once in the window, it played havoc with the silverware in its fright, until rescued by Police Constables Tildesley and Bateman.'

One of the last accidents, associated with horse-drawn cabs or coaches, occurred on Thursday, November 2nd, 1922, when a boy, Thomas Green, of 65, Austin Street, Hanley, was running behind a mourning coach in Hanley when his leg became trapped in one of the rear wheels. The limb was carried round the back axle and after he was extricated by the driver he was driven to Dr. Prendergast's surgery and later to the North Staffordshire Royal Infirmary, where it was found that he had fractured his leg and thigh.

In 1909, hansom cabs were still running in the towns of the Potteries and one feels that a few quotations of some of the fares at this period (especially as the cab era was coming to a close) will be of interest. The rates of cab fares from the old Town Hall, Fountain Square, Hanley, were as follows: to Basford Church, 1/9; to Bucknall Church, 1/9; to Burslem Town Hall, 1/9; to Cauldon Road, Stoke, 1/3; to Chesterton Church, 5/3; to the Lord John Russell Inn, Dresden, 4/-; to Etruria Hall, 1/-; to Etruria Station, 1/3; to Fenton Police Office, 2/3; to Ford Green Ironworks, 2/9; to Hanford Church, 2/3; to Hartshill Infirmary, 2/6; to Longport Station, 2/9; to Longton Market Place, 3/3; to Milton Church, 3/-.

This worked out at a rate for every carriage (with one or two passengers) for a mile, or less one shilling, and for every additional fourth of a mile over that distance, three-pence. If the carriage carried three people the charge was 1/3 per mile or less and fourpence for every additional quarter-mile. If four passengers, 1/6 per

mile or less and sixpence for every additional quarter of a mile.

In November, 1911, the Sentinel published, on the front page, a column of advertisements of considerable length, under the heading of, 'Horses, Carriages and Carts.' Underneath this were a number of advertisements under the heading of, 'Cycles and Motor Cars.' There were, in these columns, twenty-seven advertisements for horses, carts and carriages and four for cycles and motor cars.

In the 'Evening Sentinel' of the present time, it is not unusual to find several hundred advertisements for new and second-hand motor vehicles each day, but the day of the heading 'Horse, Carriages & Carts' has passed. To-day, few horses and carts are to be seen on the roads. In addition, one rarely sees them overloaded which was by no means infrequent in days gone by when the poor draught-horses not infrequently dropped under their loads of coal and other materials. Kidsgrove Bank and Hartshill Bank were two of the worst places in the Potteries for horse-drawn traffic. Some of the 'Jaggers' were kind to their horses and allowed them to rest, others were not so thoughtful.

Until the early years of the twentieth century, carters (cart and waggon drivers) were a very numerous body of men in the Potteries and mining districts. There was a Potteries branch of the United Kingdom Carters' Association, which held an annual demonstration on a Sunday usually in the Temperance Hall, New Street, Hanley. As late as 1895, it was claimed, by members of the Hanley branch, that carters' hours were excessive, payment unsatisfactory and that the two-cart system was a system that they would fight to abolish but 'the masters would not help them to do that.' In the Potteries, the two one-horse carts system prevailed extensively, especially in the case of coal-drawing. The carters considered that it was scarcely possible for one carter to properly attend to two horses and carts—often heavily laden—and that the system was a danger to the public in addition to being 'cruel to the poor tugging horses.' It was said, also, that the practice prevented many carters from obtaining employment. By 1896, the Carters' Association had been in existence for some years and, in the North Staffordshire district, many branches had been formed. The Association did much good work for its members in such matters as loosening, or doing away with, the use of the bearing-rein for drawing horses, minimising boy-carting and reducing the two one-horse carts system. In 1896, the question of combining together on trade union principles, for their own protection and advantage, gave a glimpse into the future of the trend of the now all-powerful trade union system.

Walking was, as now, the cheapest form of personal transport and seemed as popular in the mid-nineteenth century as now, for, in July, 1853, 'Mrs. Dunn, the celebrated American female pedestrian, commenced her unprecedented feat of walking one thousand miles in one thousand consecutive hours on the bowling green of the Noah's Ark Inn, Hartshill, on Saturday last.' Apparently, in spite of drenching rain, which has fallen at intervals during the week, she has so far accomplished her undertaking. 'She walks in the Bloomer costume and her appearance and style of walking are much admired. Great numbers of people have been attracted to the spot by the novel exhibition.' Indeed, many people went during the night, 'expecting to catch the fair one napping.' By August 20th, the lady was still walking and had accomplished four-sixths of her task—a task which she had previously achieved elsewhere.

"Queen," the Hanley-Burslem, horse drawn tram, *circa* 1862. What a contrast to the 525 motor vehicles today (1960) owned by the Potteries Motor Traction Company—in addition to those run by six other 'bus operators.

The advent of the motor car was, of course, to revolutionise road travel and the roads were steadily improving, but for that new innovation, the cycle, the roads were far from being satisfactory. It is not then surprising that, in 1890, owners of the first 'Boneshaker,' and later 'penny-farthing' bicycles, made representations to the road authorities asking for improvements.

In 1903, in Burslem, lived that lovable character and townsman, Mr. H. K. Hales, admitted by Arnold Bennett, the famous North Staffordshire novelist, to be the original of 'Denry Machin' in his book on life in the Potteries entitled, 'The Card.'

Mr. Hales was selling, from his shop in the Market Place, early motor cars with names some of which were to become famous and one or two which, at the time of writing, are still well known. They included the Velox, De Dion, Star, Rex, Lagonda, Singer, Swift and the Royal Enfield, varying from eight and a half horse-power to ten horse-power. By telephoning Burslem 428, one could obtain any make for cash or easy payments!

At the same time, the well known firm of C. T. Lycett, of Burslem and Hanley, was selling cars and cycles and motor cycles. These included the Humber, Raleigh, New Hudson, Centur, Osmond, Lea Francis, Excelsior, Bat and other makes. Prices varied from one hundred and twenty-five guineas to two hundred and seventy-five guineas cash, or easy payments. Mr. Hales' first car, a two horse-power Benz, was purchased early in 1897 and brought to Burslem. One year before this, it had still been necessary, by law, to employ a man, carrying a red flag, to walk in front of the motor vehicle.

From 1910 onwards, cars gradually increased in number. Indeed, there was in existence a Mid-Staffordshire Automobile Club Hill Climbing Competition as early as 1905-6. This was the first hill climbing competition promoted by the club. Mr. Harold Hales, as might be expected, took a special interest in these events and he set off to report this for the 'Sentinel,' accompanied by Mr. Charles Ridgway of Hanley. Mr. Hales was in his De Dion coupé. 'Outside an Arctic blizzard was sending the snowflakes whirling across the landscape. . . . We gradually overhaul Mr. Henry Johnson's well known Daimler car,' eventually arriving at Milwich. 'Two police officers stand at the corner, but not a motor car is to be seen. Then, from all directions, the motor cars came: Daimlers, Talbots, Humbers, Daracqs, Wolsleys, until the scent of petrol fills the air. Mr. Percy Shelley, of Longton, drives up in his handsome red Talbot, amidst a hum of animated conversation, barking dogs and the hum of engines. The sun, at last, forced its way through the clouds. The Rev. S. W. Jones is first to leave on his Humber—the trials are on. It was now 5.20 p.m. and Milwich not being provided with a telegraph office, it was necessary to motor three miles through narrow twisting lanes and cross-roads, devoid of sign posts, to the village of Fradswell where I found the quaintest village post office I have ever seen. Farmer Millington, assisted by his daughter, deals with His Majesty's mails. Soon, the official results were flying over the wires to Hanley. Then back to Milwich in time to be photographed at the termination of the proceedings. Pratts' Motor Spirit was used by the winning car.'

Mr. Hales recalled that, 'a pretty cousin of mine had the distinction of being the first cyclist in England to be prosecuted for riding on the footpath.' The case was

the first of its kind and no fine was inflicted, but the costs of the case had to be paid by the cousin. The case was headed, 'A Breach of the Turnpike.' In 1907, Mr. Hales had held a motor exhibition of considerable size in the Drill Hall, Burslem, when Lanchester and many other makes were on view.

The Beeston motor tricycle, purchased by Mr. Hales, in 1898, and run in Burslem, was the first in the country. Another early car was Mr. Alfred Meigh's Lagonda tri-car and Dr. Mitchell's Mabberley car, an extraordinary vehicle, having a wheel at the front and rear and also one on each side. A strong gust of wind would overturn it.

Interesting comment, on early motor cars, was made by Mr. W. D. Spanton, F.R.C.S., once House Surgeon at the Infirmary at Etruria, who wrote in his book, 'The Story of My Life,' that, 'About March, 1898, I invested in a motor car and soon began to experience its enormous possibilities, from a professional point of view. This may not appeal so much to those who previously never had to rely on horseback, horse carriages and ramshackle trains, no trams even, or omnibuses!'

Mr. G. Bebbington's Benz, made about 1899, was also one of the early cars to run on the roads of the Potteries. However, we now turn to the equally fascinating subject of the horse-drawn tram and other forms of public transport, which superseded the hansom cab in the six towns of the Potteries.

Horse Drawn Trams

In January, 1904, Mr. George Francis Train, the pioneer of the horse railways, died, aged seventy-five. A brief obituary disclosed little of the time spent in fighting public prejudice, in England, to his schemes for street railways, upon which horse-drawn trams were to be run.

'Mr. Train, an American, of Boston, North America, was the clever, self- complacent and mercurial apostle of horse railways and the public were dazzled, but not blinded, by the scintillant eloquence of this fascinating specimen of "Young America,"' writes a contemporary newspaper, in 1862.

Mr. Train arrived in England, in October, 1859, and laid the first street passenger tramway in Birkenhead. He had been bitterly opposed in London for proposing such a railway there and although he did lay a short length, in 1861, he was later made to remove it. The Birkenhead line was opened in August, 1860.

It is interesting to note that the word tramway is derived from the name of a man called Outram. James Outram was an ironmaster and engineer, who, in 1755, removed wooden rails, then in use at a colliery in Sheffield, and substituted L-shaped cast iron rails. These lines became known at 'Outram's Way' and finally became abbreviated to the word tramway. The earliest known public conveyance in the Potteries was a one-horse omnibus, plying between Longton and Burslem, in 1842, fare one shilling.

One of the first intimations of the presence of Mr. Train, with his momentous proposals for such a street railway in the Potteries, was a discussion by the Hanley Town Council on the project, in June, 1861. With the Mayor, Mr. J. Dimmock, in the chair, the Borough Surveyor produced a plan of the proposed street railway cars in the district. Alderman Boothroyd spoke, from personal experience, of the short London Line between the Marble Arch and Notting Hill and was warmly enthusiastic

whilst Councillor Jesse Shirley, of Etruria, declared, 'He would be happy to become a shareholder in a line for the Potteries.' The recommendation of the General Purposes Committee was accepted. In August, of the same year, George Francis Train writes, 'to the Town Council of the Borough of Hanley,' and ' . . . begs respectfully to apply for permission to lay down a single line of street rails, with proper passing places, through the Borough of Hanley, ... being part of a line which I am desirous of constructing from Longton to Golden Hill.' Among other advantages, Mr. Train offered to maintain the road between the lines and also one foot on each outer side of the lines, 'during the time that I shall continue to work the line.' In addition, he gave the council the option of purchase of the line and stock at periods of seven, fourteen and twenty-one years from the opening. A local engineer-secretary was appointed and the company, 'The Staffordshire Potteries Street Railway Company,' was formed.

On November 25th, 1861, 'the first sod' was turned in Waterloo Road, Burslem. By December 14th, workmen on the railway were reported to have made good progress, 'the rails having now been laid from Bethel Chapel, in Waterloo Road, to Cobridge Church.' The length of the line from Hanley was to be two miles. The lines were laid in light railway style, with a gauge of four feet, eight and a half inches, at the side of the road and rested on wooden sleepers. The enthusiasm of the public varied: some were opposed to the scheme, especially hansom cab owners. Stoke felt that it was, 'a direct insult to the town,' for the company had omitted Stoke in their plans for the line, having decided to take it from Hanley to Fenton, through Joiner's Square, and, 'the Company appeared to have considered that Stoke did not belong to the Potteries at all.' It was considered very odd that they should, 'propose to carry the line along a road where there were scarcely any houses.'

The Street Railway Engineer excused himself by saying, 'the only reason he could give was a fear lest the North Staffordshire Railway Company should oppose the scheme if the line were carried there.' The enthusiasm of Mr. Train, however, could not be restrained and, at the end of November, 1861, speaking in high spirits at a meeting on the railway, said that he had just left the Blythe Marsh Turnpike Road Trustees, who had conceded the use of the road to Longton. The Lawton, Newcastle, and Burslem Trustees, as well as the Newcastle and Leek Trustees, had all conceded the roads on the distinct understanding that Stoke should not be omitted.' He assured the meeting that they might travel on the railway to Hanley on Christmas Day. One half of the shares were already taken. It was proposed to have four thousand shares at £5 each. Mr. Train had shown his own interest by taking one quarter of the entire stock. Hanley and Burslem people had subscribed £1,000 and the Stoke people enough to construct their line. Mr. Train thought that married ladies in the six towns should induce their husbands to make them a Christmas box of a £5 share. 'Whatever happened,' he declared in a burst of moist-eyed enthusiasm, 'England and America must be friends.' Overwhelmed, Mr. Train sat down amidst loud cheers.

About the same time, November 23rd, 1861, 'a capacious and elegant omnibus intended to run on the Potteries Street Railway arrived at Stoke railway station and was, in the afternoon, removed to Hanley Market Square. On Tuesday, it was taken to Burslem, where it was formally received by the local authorities and where it

still remains.'

On Monday, January 13th, 1862, the Hanley and Burslem section of the Staffordshire Potteries Street Railway was opened to the public. On that day, cars ran from the Fountain Square, Hanley, to the Bethel Chapel in Waterloo Road, Burslem, but it was expected that the Burslem Town Hall would be reached by the end of the week. The cars left their stations at intervals of one hour, while the rails were raised so little above the ground that cabs and carriages glided over them with perfect ease. In the case of earlier omnibuses, the strain was on the horses through constant stopping and starting. In stopping, they backed against the bus until their outstretched forefeet almost slipped on the pavement. Mr. Train's cars stopped themselves by a brake. In the old omnibus, for a passenger to get out was quite a problem. If buried far in the bus, he had to send a telegraph of nudges to the conductor, who sent a telegraph of shouts to the driver, who had to pull up his horses, with all the slipping and stamping necessary for the process. 'In Mr. Train's cars, the conductor walks through the roomy omnibus; he rings a bell, the brake is put on and out step the passengers.' The cars were much longer than common omnibuses. The back and front were exactly alike. On arrival in Hanley or Burslem, horses were removed with pole and harness attached and fastened to the other end of the car for the return journey. The wheels were about two feet in diameter. Passengers sat on each side and there was standing at each end, on the landing platform, for six more people besides the driver and conductor. 'Shortly after eleven o'clock, a car started for Burslem with several directors and others aboard.' The journey on this trial run took nine minutes and, about 12 p.m., both cars were on the line with a large gathering of directors and shareholders in them. The footpaths were crowded en route whilst peals of bells in Hanley Church were rung for the occasion. At the Bethel Chapel, a procession was formed to go to Burslem Town Hall, where all were, 'entertained to wine and biscuits,' by the Chief Bailiff. On reaching Hanley Town Hall, after the return journey, the assembly again partook of refreshments and listened to speeches. The railway was considered a step in the right direction for there were nine hundred people living in Hanley who worked in Burslem. In addition, it was a vast improvement on omnibuses capable of carrying six to ten people which jolted all over the road. The smoothness of Mr. Train's ride was something to be experienced. Cars ran hourly from half-past eight in the morning until nine-thirty in the evening, leaving Hanley at the half-hour and Burslem on the hour. On Sundays, cars were to be run only three times each way as there was no desire to encourage Sunday pleasures! The fare was two-pence to the Cobridge toll gate, from either terminus, and threepence for the through journey. This charge was higher than members of the public had at first been led to believe. Season tickets were available, parcels carried and a discount allowed to large parties. On Thursday, January 30th, 1862, the first general meeting of the shareholders of the Staffordshire Potteries Street Railway Company, Limited, was held in the Court Room, at the Town Hall, Hanley. The provisional directors present were: Messrs. G. Baker, B. Boothroyd, E. Allbut, W. Bateman, T. Peake, W. Webberley, H. Pidduck, G. H. Hawley, J. Edge, F. Bishop and J. Macintyre. Mr. Baker was voted into the chair. The chairman remarked that they might have been living a hundred miles apart, so little had they known of their friends at Longton, who, in turn, knew very little of

their friends in the northern part of the Potteries. This was indeed true, for, in those days and for many years afterwards, it was a considerable adventure to travel from one end of the six towns to the other. To this day, there are people living in Tunstall who have never been to Longton!

Mr. J. S. Forbes, secretary of the company, gave a report, one of the main features being the hope that they would eventually come to an agreement by which some form of reduced tolls could be obtained at the various toll gates. The directors had advertised for tenders for providing horses for the working of the cars, but in view of the high tenders received, they decided to provide their own horses.

Previous to the trams, it was estimated that about one hundred persons per week were carried by existing means of public transport between Hanley and Burslem. In the first two weeks, with only one car travelling over this route, no less than five thousand, three hundred passengers made use of this line.

The capital stock account showed an expenditure of £5,260, composed of the following items:— Roadway and royalty, 2,966 yards, £4,213; two cars and freight, £479-15-0; seven horses and keep, previous to the opening, £170; harness, uniform, etc., £43-5-9; alteration of offices and stables, £48-10-9; advertising, £105; miscellaneous printing, stationery, stamps, etc., £29-8-10; surveyors' and solicitors' expenses (Leek trust) £22-8-8 and contingent liabilities, £150. The statement of receipts and working expenses for the fortnight ending January 26th, 1862, showed that 5,302 passengers had been carried, bringing in £61-7-4 and that tickets, of the value of £3-10-0, had been sold, making the income £64-7-4. The expenditure during the same period had been £50-8-6, leaving a balance of £13-18-10. Toll charges for one fortnight amounted to £15. The greatest difficulties in operating the line was the steepness of the gradients, which involved the use of considerable 'horse power.' Arnold Bennett immortalises the horse-trams in his book, 'The Old Wives' Tale,' with his description of the boy on horseback, who waited at Vale Place, at the bottom of Hope Street, to assist the tram up the incline to North Road and, on the return, up the slope of Hope Street to Hanley from Vale Place.

'Incredible as it may appear, there was nothing but a horse tram running between Bursley and Hanbridge—and that only twice an hour—and between the others towns no stage of any kind! One went to Longshaw as one now goes to Pekin . . . . A poor, blind, complacent people! The ludicrous horse-car was typical of them. The driver rang a huge bell, five minutes before the starting, that could be heard from the Wesleyan Chapel to the Cock Yard and then, after deliberations and hesitations, the vehicle rolled off on its rails into the unknown dangers while passengers shouted good-bye. At Bleakridge, it had to stop for the turnpike and it was assisted up the mountains of Leveson Place and Sutherland Street (towards Hanbridge) by a third horse, on whose back was perched a tiny whip-cracking boy; that boy lived like a shuttle on the road between Leveson Place and Sutherland Street and, even in wet weather, he was the envy of all other boys. After half-an-hour's perilous transit, the car drew up solemnly in a narrow street by the 'Signal' office in Hanbridge and the ruddy driver, having revolved many times the polished iron handle of his sole brake, turned his attention to his passengers in calm triumph, dismissing them with a sort of unsung doxology. And this was regarded as the last word of traction! A

whip-cracking boy on a tip horse!'

During the first week of February, 1862, the line was completed as far as Burslem Town Hall. Not all members of the community appreciated the new tramway. A few days before this, a farmer, complete with a large cart loaded with straw, deliberately blocked the line and, standing by his horse's head, declared that he'd see if he couldn't stop the thing from running. When the car came up, the driver civilly asked him to allow the thing to pass, but he doggedly refused to budge an inch. A crowd of several hundred persons collected and were about to take the law into their own hands, when the police arrived and induced the man to move on.

Tenders were asked for on February 20th, 1862, for the construction and extension of the line from Hanley to Longton in two sections: Hanley to Stoke and Stoke to Longton. These were to be in by March 22nd, 1862. As will be seen later, the proposed line never became an established fact.

Although the rate of travel of the cars was comparatively slow, accidents occurred occasionally. In mid-April, 1862, a fatality occurred on the street railway at Burslem. On a Wednesday evening, the street car, 'Queen,' was leaving the terminus by Burslem Town Hall, when a sixteen-year-old boy, George Gater, stepped on to the driving platform to ride with Henry Brown, the driver of the car. In Waterloo Road, the lad suddenly attempted to jump from the driver's stage of the car when opposite to Wellington Street, intending to go along Pitt Street where he lived with his parents. His foot caught in the car and he was thrown under the wheels, the whole weight passing over his stomach. Although attended by Mr. Goddard, a surgeon, the boy died within fifteen minutes. The driver was exonerated of blame, but said that many boys often ran alongside the car and attempted to interfere with the tip horse and the guard had great difficulty in keeping boys from leaping on to the car. Mr. Forbes, the secretary of the company, said that forty thousand passengers had travelled on the cars up to date and this had been the first accident. He admitted that boys had been allowed frequently to hook the tip-horse without the car being stopped and he hoped that the practice would, in future, be discontinued.

Meanwhile, the line was increasing in popularity. The number of passengers conveyed in the four weeks, ending May 18th, 1862, was eleven thousand, seven hundred and forty-two and the receipts for the same period £139-19-4. By June 28th, three thousand passengers were being conveyed per week. Thus encouraged, the directors had improvements in mind which would be made with as little inconvenience as possible to the ordinary traffic on the roads. It was hoped to take up the line from the George Hotel, Burslem, to Bleak Hill and relay it along the side of the road and to use, along the whole route, the improved rail which had answered so well on the slope of Hope Street, Hanley. The secretary said that a dividend of eight per cent. would be paid to the shareholders. There was a considerable amount of correspondence in local newspapers for and against the street railway, especially as the company was considering applying to Parliament for a private Act conferring powers on, and protecting the interests of, the company. Protests in letters became more and more aggressive. One of the annoyed wrote, 'I suppose it was quite trivial to kill a poor lad last summer and of no importance to smash another's leg? It is quite a trivial affair to pitch a person from his saddle five or six yards in front of his horse

occasionally; it is of no consequence to smash traps, wrench cart wheels off, break axles, or spoil horses by cutting their knees.' Such letters, justified or unjustified, augured ill for the Potteries Street Railway.

Despite opposition, such as this, the company applied to the Hanley Town Council, in September, 1863, for leave to divert their line along Foundry Street, thus avoiding the awkward curve at the top of Hope Street. A description of the new rails the company intended to lay down along the whole route was also given and work started on these improvements the following month. This resulted in the trams being able to start in Foundry Street, at the Trinity Street end, by the 'new' premises of the 'Sentinel' Newspapers. The line emerged into Hope Street, through a bottle-necked passage, so narrow that it was very inconvenient, if not dangerous, for anyone to be caught passing while a car was on the move. These lines were eventually removed in 1879, when the horse trams were discontinued. However, the directors had considered this to be an improvement. In addition, they re-laid the lines in Waterloo Road, placing them on the west side of the road and curving round the toll gate at Cobridge. At the annual meeting of the company, in 1864, statements showed that, during 1863, the company had carried sixteen thousand passengers more than in 1862 and that the receipts for the same period had increased by £190, but the profits, which reached six per cent., were not available for the purposes of a dividend, having been absorbed by the partial re-laying of the line. Also an offer had been made by one of the directors, Mr. G. P. B. Bradford, to lease the line for five years, with a guarantee of five per cent. to the shareholders and eight per cent. in the event of an extension of the line taking place. The directors recommended the shareholders to accept the offer. Some improvements were made, one of which was the running of cars each way, at half-hourly intervals, in November, 1864. The average time for the one and three-quarter miles to Burslem was eighteen minutes. In July, 1868, the increase in fare by one penny for the Hanley to Burslem run was agreed upon by the directors. Mr. Bradford made a statement, which we know so well in this mid-twentieth century, that the increasing costs of operating the line, and the extraordinary price of horse provender, forced him to take this step. This, of course, was not a popular move and resulted in September, 1868, of the service cars of the Street Railway being, 'very materially reduced.' Cars would, in future, leave Hanley for Burslem every hour from 8.30 a.m. to 8.30 p.m. and Burslem for Hanley every hour from 9 a.m. to 9 p.m. Extra cars to be run only on Mondays and Saturdays. In 1871, the dividend paid to shareholders was four per cent. In 1878, an adverse balance was reported and many of the directors were losing interest, doubting whether the line would pay unless extended to Longton and to Goldenhill. After sixteen years, however, there seemed little prospect of the horse-drawn street-car extensions ever being carried out.

The loop line, which had been opened from Etruria to Hanley, in 1864, and extended to Burslem, in 1874, made the event still less likely. In 1881, the question of the street railway for horse-drawn cars was settled for all time, for the last of the horse-drawn trams was taken off the line from Hanley to Burslem and the old brass tokens used as tram tickets, bearing an embossed picture of a horse-drawn tram on rails and the words, 'Trains Patent,' on one face and 'Staffordshire Potteries Street Railway Limited,' on the obverse side, became collectors' pieces. Thus, in 1879, the

Staffordshire Potteries Street Railway Company, Limited, became, 'the North Staffordshire Tramways Company.' The passing of the horses and the appearance of the first steam tram were notable events of the year 1881.

Steam Trams

The coming of the steam trams to the towns of the Potteries was, in itself, an industrial revolution. It was the beginning of a mechanical age on the roads which has continued in a series of improvements up to the present day of the diesel oil-driven bus. As may be expected, the advent of these steam trains created a big stir in the district, said an eighty-year-old inhabitant of Hanley, Mr. William Clarke, reminiscing in 1936.

The new company, the North Staffordshire Tramways Company, took over the Potteries Horse Tramway and it was their intention to use steam as a motive power and, by April, 1881, the first steam car was running between the Denbigh Castle Hotel, Stoke, to Victoria Square, Fenton, and shortly afterwards to Longton. In July, a steam tram ran from Stoke to Hanley and, in April, 1882, the line from Hanley to Burslem was converted for steam cars, making a total of five and three-quarter miles of steam tramway. This line was made possible by the Tramways' Orders Confirmation Acts of 1879 and 1880. An extension of this line was made from the Market Place, Longton, along Market Street to the end of the High Street, but the Board of Trade refused to allow it to be used for steam trams on account of the narrowness of some portions of the road. The line fell into disuse and became the possession of the Longton Corporation under an agreement, formed in October, 1896, between the Longton Corporation and the North Staffordshire Tramways Company, providing for the future use by the company at an agreed rental.

The steam trams were extraordinary vehicles and the rare illustrations, given in this work, are the best means of 'describing' them. As will be seen, they pulled double-decker cars, in addition to single cars. They were very heavy and rather ungainly and, as will later be recorded, caused much anger and controversy by the smoke and noise they made. The engines were mainly enclosed and could be driven from either end, having towing lugs on each end. They were open, without any weather protection, and the drivers and firemen had to face hardships, especially in stormy weather. The rolling stock consisted of forty single and double-deck tram cars, with seats running the length of the car. The permanent way of single track, with occasional loops as passing places. The first steam tram driver was a Mr. Edwin Edwards, who died at his home in Terrace North, Fenton, in April, 1910. Mr. Edwards had been one of the company's first employees, having helped to construct the first steam tram introduced into the Potteries. He also drove this tram on its trial run for inspection by the Local Government Board. The central operating depot of the company was at Stoke and contained engine and tram car sheds, workshops, stores and offices. The lines covered most of what we now call the 'Main Route,' via Burslem, Hanley, Stoke, Fenton and Longton. A line also ran from the end of Glebe Street, in Stoke, near the railway station, along Glebe Street and Church Street, through the town and by Campbell Place, via the London Road, to the West End.

Taking a glimpse into the past, we see, on a sunny Saturday morning, in April,

For information see overleaf

1. Steam tram at Campbell Place, Stoke, *circa* 1882.

2. A steam tram engine at the engine sheds.

3. Steam tram ascending Snow Hill, Shelton, *circa* 1882.

4. Disused steam trams photographed at their temporary resting place adjoining Hanley Park, in May, 1899.

5. One of the excellent coaches which were pulled by the steam tram engines.

6. Steam tram at Vale Place, Hanley.

7. Steam tram at Victoria Square, Shelton. The decorated arch formed part of the local decorations for Queen Victoria's Golden Jubilee, in 1887.

1881, the opening of the line, from Stoke to Longton, to the public, when four engines, each drawing one car, were put on the rails. Each time they ran, the cars were filled to excess and hundreds, who wished to take part in the opening runs, were unable to do so. Between eleven o'clock in the morning and eight in the evening, about three thousand persons travelled and the receipts for the four cars, for the day, was £20.

The first accident to occur on the railway took place on the Sunday afternoon, at Fenton, when a horse-drawn gig collided with one of the two cars. The horse passed the first, but shied at the second engine. The vehicle rebounded from the steam engine and a wheel was knocked off its axle. One of the occupants, a Mrs. Bond, was thrown out of the gig and seriously injured by the fall.

As soon as the novelty of the new means of transport began to pass, the inevitable criticisms, which had been so much a burden to the old horse-drawn transport, began to appear. As early as June, 1881, people of the Potteries began to complain of, 'Annoyance caused by the water from the engines escaping on to the tramway,' and the company was requested to put down grids at intervals on the line, to drain off this greasy water. Reference to the tramways as a 'nuisance' was all too common.

At Burslem, in September, 1881, Mr. L. G. Hales declared that the old tramway, which was still in use between Burslem and Hanley, 'was one of the most dangerous I ever saw in my life.' The Mayor of Burslem at once opposed this remark and said that his experience of tramcars was on the contrary and that they were most beneficial to the public. 'It was just possible,' he added naively, 'that Burslem had not got the best appliances, but that they would, no doubt, develop and, as time went on, horse and other animals would get more or less used to them and then they would not be scared.'

Doubtless, the great Potteries novelist, Arnold Bennett, would have agreed with the Mayor had he, at the age of fourteen, been with him in the Burslem Council Chamber, for in his novel, 'Clayhanger,' written many years later, Bennett says,

'At Bleakridge (Cobridge), "above" the smoke and "out" of town, the new steam cars would pull you up there, in three minutes or so, every quarter of an hour. It was really the new steam cars that were the making of Bleakridge as a residential suburb . . . . Land was changing owners at Bleakridge and rising in price.'

Nevertheless, in January, 1882, residents and owners of property, abutting on the road from Stoke to Hanley, complained that, 'The noise and appearance of the engines, the pace at which they moved, and the steam and smoke which they emitted, caused serious collisions and that the more wealthy customers of business people were withdrawing themselves and taking their custom to other towns.'

Extraordinary conditions had been laid down, which were that, 'There should be no noise, no fire seen and no smoke issuing and the trams were not to travel at a greater speed than eight miles per hour.' Accidents were fairly frequent, though generally not serious, but it was alleged that the company had broken their contract with plenty of smoke, noise and steam between Longton and Stoke.

The following members of the Hanley Town Council, at a special meeting, called in January, 1882, to discuss the steam tram question, were: The Mayor (Mr. W. T. Walley), in the chair, with Aldermen Boothroyd, Stephenson, Gilman, Cartledge, Powell and Ridgway, Messrs. Bromley, Moss, Tooth, Ringland, Shirley, Boulton,

Hampton, Miller, Bradford, Wood, Banks, Warrillow, Turner, Broomhead, Tunnicliffe, Hammersley, Emery, Shenton, Palmer, Copeland and Cooke.

As they had already practically consented to the use of steam on the roads, the members' attitude was of a much milder nature. Alderman Powell, whose pottery manufactory, in Stafford Street, took up the whole of the present Arcade site, from the foot of Lamb Street to Bryan Street, objected to the engines passing his works, owing to the narrowness of the road at that period. As against this, it was pointed out that the cars were not as wide as the old horse-drawn trams, the new track being only four feet between the rails, as against four feet and a half inch, formerly. At the outset, the engines were a little wide, six feet, ten inches. This had been reduced to six feet, six inches. As regards speed, an automatic indicator was fixed to the car, which showed clearly the speed at which it was travelling. Later, in the same month, January, 1882, a packed public meeting, of the ratepayers of Fenton, was held in the Town Hall, Fenton, 'to consider the advisability of the continuance of steam on the North Staffordshire Street Railway.' Fenton was in favour of the steam trams and was determined to support a courageous company, which had a capital investment of £125,000 and had carried nine hundred thousand passengers since the opening day, in addition to paving at least one third of the length of the road in the Fenton district and keeping it in good condition.

At Burslem, at the end of January, 1882, a similar meeting was held, 'to consider the question of having steam cars running through the town.' Here, it was felt that the company had not kept faith with the townspeople, for a Provisional Order, for 1880, showed that the company was directed to carry the line through Burslem, via Newcastle Street, Davenport Street, Brownhills and Tunstall to Goldenhill. When the council allowed the beautiful wood pavement to be taken up, in order to lay the lines across the Market Place and then for it to stop at the top of Newcastle Street, opposite to the bank, many felt that the tramway company was not keeping faith and that it was to be the terminus.

The surveyor of the company was doing all he could to get the line extended to Tunstall, but although they could get the trams up Newcastle Street, it was too steep to allow it to go down safely, and that they were trying to get to Tunstall by the new road (Scotia Road), but there was difficulty with the Chatterley Iron and Coal Company, whose level crossing was at the foot of the road. Incidentally, it was not until April, 1899, that the Town Council requested the Chatterley Company to provide gates, forty feet wide, on this unguarded railway crossing and to employ a watchman for the protection of the public. The general opinion, in the towns, seemed to be that the tramway company should be allowed a term of three years instead of the seven years proposed by the Provisional Order.

Longton, too, had its meeting on February 13th, 1882. The Mayor said that there was no less than thirty-eight trams timed to come into the town every day. In addition, the North Staffordshire Railway gave them a half-hourly service. He added that the Longton Town Council was the only authority, from one end of the Potteries to the other, that was against the use of steam. He, personally, did not agree with this. It was while this controversy raged that Stoke had a fatal accident on the steam tram railway, when an eleven-year-old boy was run over by a street car. He was not

quite dead, but the poor lad 'only breathed twice' after being taken to the Red Lion Hotel. The boy had tried to get on the slowly moving car, which had suddenly accelerated, causing him to loose his hold and fall under the wheels. Everything seemed against the success of the steam car. In Stoke, shopkeepers in Church Street were complaining bitterly of the sulphur fumes, smoke from the cars. The medical officer stated that these fumes were very injurious to health. In January, 1883, a horse was killed at Victoria Square, Shelton, by bolting into a steam car coming from Hanley. The driver escaped unhurt. The company were assailed from all angles for not paving the road in Liverpool Road, Stoke. In Waterloo Road, the tram lines were, in some places, six inches higher than the sets. Many things the company promised to do, but they failed to keep their word. At the fourth annual meeting of the shareholders, in January, 1883, the report of the year ending November 30th, 1882, showed that a profit of £1,271-15-2 had been made. The mileage covered during the same year had been 150,911 miles, carrying 1,572,482 passengers. Receipts were £10,206 and a dividend of one shilling and sixpence per share was paid. It was also stated, at a meeting, that the company was considering heavy night traffic in the carriage of coals and potters' materials and that the new Wilkinson light engine, weighing only eight tons against thirteen to fifteen tons, would halve the cost of operating the trams and reduce wear on the rails. Penny fares were to be resumed with the arrival of the new engines, which required only one man to drive them, instead of two, as formerly.

In December, 1884, the tram company applied for leave to the Hanley Town Council to abandon the line which had been authorised for construction from Howard Place, Shelton, to Newcastle, owing to the lack of finance and to an impossible gradient of one in eleven. It was the people of Stoke who were the chief objectors to the steam trams. Traders, councillors and townspeople were forever protesting at the smoke and sulphurous fumes from the engines and, as stated at a council meeting in 1888, there were people inside the council and outside it, who would never be satisfied until the tram cars had ceased to run. Councillor C. S. Jones believed that the smoke nuisance would, at once, be abated if the tramway company would stop using the coke from the Etruria gas works and use the Durham smokeless coke. Such criticism did not alter the fact that the trams benefitted the public in one week of August, 1888, by carrying over eighty thousand passengers.

So annoyed did Stoke people become that a weekly news sheet, entitled 'The Magpie,' published an imaginary conversation between a steam tram engine and a Stoke bottle-oven. The bottle-oven, from which appalling black smoke was vomitted, covering much of Stoke, was compared with the small amount issuing from the steam car. 'We're in business here, you know,' said the oven, 'and you aren't. That makes all the difference. And said the oven, 'none o' *your* owners belong to Stoke, but *mine* do, and so do all Stoke ovens.' As a result of the controversies between Stoke Town Council and the Steam Tramway Company on the smoke question, efforts were made by the Stoke Corporation to prevent the renewal of the licence permitting the Tramway Company to continue using steam cars for a period of longer than one year, instead of the usual seven years, until it was seen whether the company did their best to abate the nuisance. The cars stopped running on the morning of Tuesday, April 24th,

1888, and a special council meeting was held on Thursday, April 26th, to discuss the matter and to deplore the scenes witnessed in the town on Wednesday, April 25th, when, between 11.30 p.m. and 1.30 a.m., the streets of Stoke were in a state of rowdyism. It was at this time that the trams and engines, under the direction of the General Manager, Mr. H. E. Whitehead, were removed to the Stoke boundary, for use outside the limit on the Thursday. The tram cars were brought out, men jumped on to them and there was loud shouting. It was considered the most disgraceful scene in the town for over thirty years. Police took action, but quelled the disturbance only for a time, after which it broke out afresh. Councillor Nicholls asked, 'Is there not some reason for what took place last night?' A strong feeling existed throughout the district and Stoke was said to be the only town that was stopping the trams from running. Councillor Acres said, 'The Editor of the "Sentinel," a gentleman who had recently come to the district, had taken it upon himself to criticise the conduct of the council and had published letters which cast a slur on the council.' The meeting carried a resolution, 'That this Corporation grants permission to the Tramways Company to continue running their cars until the 28th, proximo, and undertakes not to proceed against them for penalties under the Provisions of the Tramways Act, 1879, pending discussion between the directors and the Corporation, as to the terms of granting a licence to the company.'

Despite this resolution, the trams did not run, for the question of the renewal of the seven year licence (which expired on April 22nd) was a serious matter for the company and it was because of the risk of the very heavy penalties to which they would have become liable, in case of proceedings being instituted and a conviction obtained, that they eventually decided to stop the traffic throughout the whole route.

There was a strong suspicion throughout the district that a few Stoke tradesmen were responsible for what had taken place. The Burslem Town Council gave their support by writing to the Tramway Company, offering to allow the tramway engines to remain in the town at night, or in the daytime, to enable them to resume service between Burslem and the Stoke boundary. The letter added that the Burslem Council did not however, withdraw their complaints as to the emission of smoke and stench from the engines and the state of the roadway, but trusted that the Company would remove all ground for such complaints as speedily as possible. Stoke councillors and tradesmen protested strongly against the suggestion that they were trying to place obstacles in the way of the Tramway Company, one writer declaring that they were merely frank and outspoken and that they did not resort to such 'catch-penny' ways of doing business, such as a certain Hanley trader, who did not consider it derogatory to his position to hold the bait of a free pass in the trams, from Burslem to Hanley, if they would spend their money at his shop. 'The people of some of the other towns,' he continued, 'were severe on the Stoke shopkeepers, who were held to blame.' The matter was eventually settled by Major General C. S. Hutchinson, an inspecting officer of the Board of Trade, who, on Saturday, April 21st, inspected the engines and the line and reported in a letter, dated April 24th, that, 'As regards the emission of noxious vapours, I believe it is very much a question of careful firing, as well as the quality and dryness of the coke employed, and I see no other way of remedying the nuisance complained of, than by a vigorous enforcement of the by-laws dealing with it. So

far as engines and cars, employed on these tramways, are concerned, they appear to be in good order and to comply with the requirements of the Board of Trade. The boilers and engines are, I am informed, insured in a boiler insurance company and are subjected by that company to periodical inspections. The only addition, which appears necessary to the regulations, dated April 14th, 1883, is as follows: 'Engines and cars shall be brought to a standstill, before passing over the crossing of the single lines, at the junction of Glebe Street and Church Street, in Stoke-on-Trent.'

Regarding the state of the lines, also a complaint of the Stoke Corporation, Major Hutchinson said, 'It is, no doubt, very defective and I do not think the Board of Trade would be justified in authorising the further use of steam power until either the defective conditions of the paving has been remedied, or some substantial guarantee given that it shall be remedied within a month from the present time.' This was given and the line was in use again by May 3rd, 1888.

Differences of opinion, of a lesser nature, took place in the other towns of the Potteries and were sometimes of a humourous nature. In Cobridge and Burslem, the steam tram drivers complained bitterly, because the lines were used by carts carrying coal and a convoy of many of these carts, drawn by horses, on their way to Burslem, would occupy the line, which fitted their wheels quite well, making a lighter burden for the horses and a smooth run for the comfort of the driver. The cobbles between the lines, and on either side, provided excellent footing for the horses. The steam trams coming from Hanley, relates one witness, 'would slow down behind the carts, their drivers impatiently 'tonking' their bell, all to no avail. Often, despite the protests of a solitary policeman, the cart driver would refuse to move, saying, 'We were here first.' This caused the tram to stop and, if on the rise to Swan Bank, Burslem, could not be started again without running backwards first.' Traffic, in those days, was slow moving and the Doctor's Brougham was about the fastest vehicle on the road. Not as fast, however, as the 'Runaway Tram Car!'

In Burslem, during August, 1892, considerable excitement was caused there, when the steam engine was being uncoupled from the car at the Burslem terminus. During the operation, part of the brake gear was smashed on the car, allowing it to run back. The conductor, not knowing the cause, applied the brake, which, of course, proved useless and, in his haste, forgot the emergency brake, still intact. Only the pen of Arnold Bennett could have done justice to this scene, for the car gained speed as it travelled down Swan Bank (at this time an even steeper gradient than it is to-day), with the conductor gesticulating wildly and making futile attempts to stop and the Burslem folks scattering in its path, coupled with the shrieks of womenfolks on the pavements. The car passed through a loop in the line and did not stop until it reached McIntyre's works, well on the way to Cobridge, where it was opposed by the rising gradient. Only when the car started to gather momentum again, to set off back to Burslem, did the conductor recover his wits and apply the emergency brake.

A tragedy that occurred in Stoke, on April 13th, 1894, should be recorded as it indirectly concerns the steam trams. To-day, the West End, at Stoke, is considerably changed. Parallel with the London Road are the Coronation Gardens, opened in 1953, on the site of the filled-in canal, which passed through Boothen. In the year 1894, the canal was in use. It was four o'clock, in the afternoon of April 13th, that

a three-year-old child, Jane Ridgway, fell into the canal and Timothy Trow, a steam car conductor, hearing that a child had fallen into the canal, leapt from the tram, ran through the bushes, on the canal side, and, without hesitation, plunged into the water. Unfortunately, this twenty-one-year-old man had an attack of cramp and sank to the bottom of the canal. The child was eventually rescued by John Forrester, of Shelton, but Timothy Trow was drowned. His heroism is marked by a small monument, which stands adjacent to what was then the towpath of the canal, at a point opposite to the foot of James' Street. The monument bears the inscription, 'Erected by public subscription in grateful memory of Timothy Trow, tram conductor, aged 21, who lost his life in an heroic attempt to save that of a child, April 13th, 1894.'

The tragedy of Timothy Trow had a somewhat curious sequel. Many years later, Mr. L. Juggins, of Hanford, recalled that the little girl, Jane Ridgway, became Mrs. Juggins, and was his mother, who had died at the early age of forty-six years. She had suffered from a chest complaint, which she attributed to her fall into the canal. In addition to this, he revealed the curious coincidence that he was born on April 13th, 1912, eighteen years, to the day, after his mother's rescue from the canal. The family seemed ill fated, for, a few years later, his uncle was also drowned in the canal, close to the monument of Timothy Trow.

The last few years of the steam trams in the Potteries were comparatively peaceful. The increasing cost of maintaining the line, and renewing the engines, made it clear to the directors and shareholders that no fortune would be made from them. The returns of the North Staffordshire Steam Tramways Company, for the week ending January 17th, 1898, showed receipts amounting to £379, which was precisely the sum collected in the corresponding week of the previous year. The averages for the three years, 1896, 1897 and 1898, on a route of six and three-quarter miles, were: receipts, 14·15d. per car mile; car miles per year, 360,156, and the number of passengers carried, 3,913,746.

A forecast of events to come was reflected in a report, in November, 1889, when the tramways laid in the streets of Longton, which had been unused for many years, were made use of. These lines, which the Board of Trade had refused to allow steam trams to run on, and now the property of the Corporation, were under consideration by a large firm of tramway speculators, Oppert & Company, of London. The firm, having three tram-ways under their control, in South Staffordshire, proposed to use electricity as a motive power. Some seven years later, British Electric Traction acquired a controlling interest in the North Staffordshire Tramways Company. This firm grew, so that, by 1901, it was responsible for 124 miles of tramway, of which the Potteries Electric Traction Company was considered one of the largest and finest in the tramway world.

Electric Trams

It was laid down, under the Tramways Act, that promoters must obtain the consent of the local authorities for a new tramway and that people, owning property on any proposed route, should have a power of veto and that the concession should be for a period not longer than twenty-one years. Also, at the end of this period, the local

authorities should have the power to purchase the tramway at its value. The agreed period, with the new Traction Company, was for a period of twenty-one years, starting in 1896. All the authorities of the six towns of the Potteries, and those of Newcastle and district, had to be consulted and their consent and support obtained, together with the support of the general public.

In 1895, a Major Marindin visited the Potteries, on behalf of the Board of Trade, and inspected the proposed routes of the electric tramways. As a result of this, the Board of Trade sanctioned certain alterations in the rules, which enabled two sets of tram lines to be worked. The board also sanctioned lines to be laid in narrow thoroughfares, which meant that Longton and its suburbs would be able to have the trams. In Burslem, 'the Mother Town,' the Board of Trade granted a renewal of the steam licence for the trams for six months and, similarly, at Stoke. In December, 1895, at a meeting of the Burslem Town Council, the tramways company gave a positive assurance that the new lines would be extended to Goldenhill, Smallthorne and Longport, within two years. It was also planned that thirty-five miles of electrically worked tramways would pass through the Potteries and Newcastle.

Matters proceeded slowly and, in December, 1897, the Burslem Highways Committee resolved that, 'Proceedings be taken against the British Electric Traction Company, on account of the delay in the work in Newcastle Street, and against the North Staffordshire Tramways, for a similar delay in Waterloo Road.' Mr. Wilcox Edge stated that Mr. S. Sellon, of the British Electric Traction Company, had been interviewed, with the result that the work in Newcastle Street was completed before the time allowed by the committee had expired. At the same time, the Scotia Road lines were being pushed on quickly.

Late in March, the third Ordinary General Meeting of the North Staffordshire Tramways Company was held in London. The chairman gave a favourable report of the six and a half miles of line, then in operation, in spite of the, 'torturous streets, some of them at right angles, and it is a very shaky line, caused, in a great measure —at any rate for nearly three miles of its length—by the honey-combing of mining operations and, when I tell you that we have to conduct a population, numbering nearly two hundred thousand, through torturous streets and through narrow streets, it must be evident to you that the line is managed most prudently and most carefully.'

In the past twelve months, the chairman said four million passengers had been conveyed, without accident. A three per cent. dividend was declared, free of income tax. At an extraordinary general meeting of the company, which followed the ordinary meeting, an agreement was carried, by which the British Electric Traction Company, Limited, had the option to purchase the property and assets of the North Staffordshire Tramways, in such a manner as to be advantageous to the latter.

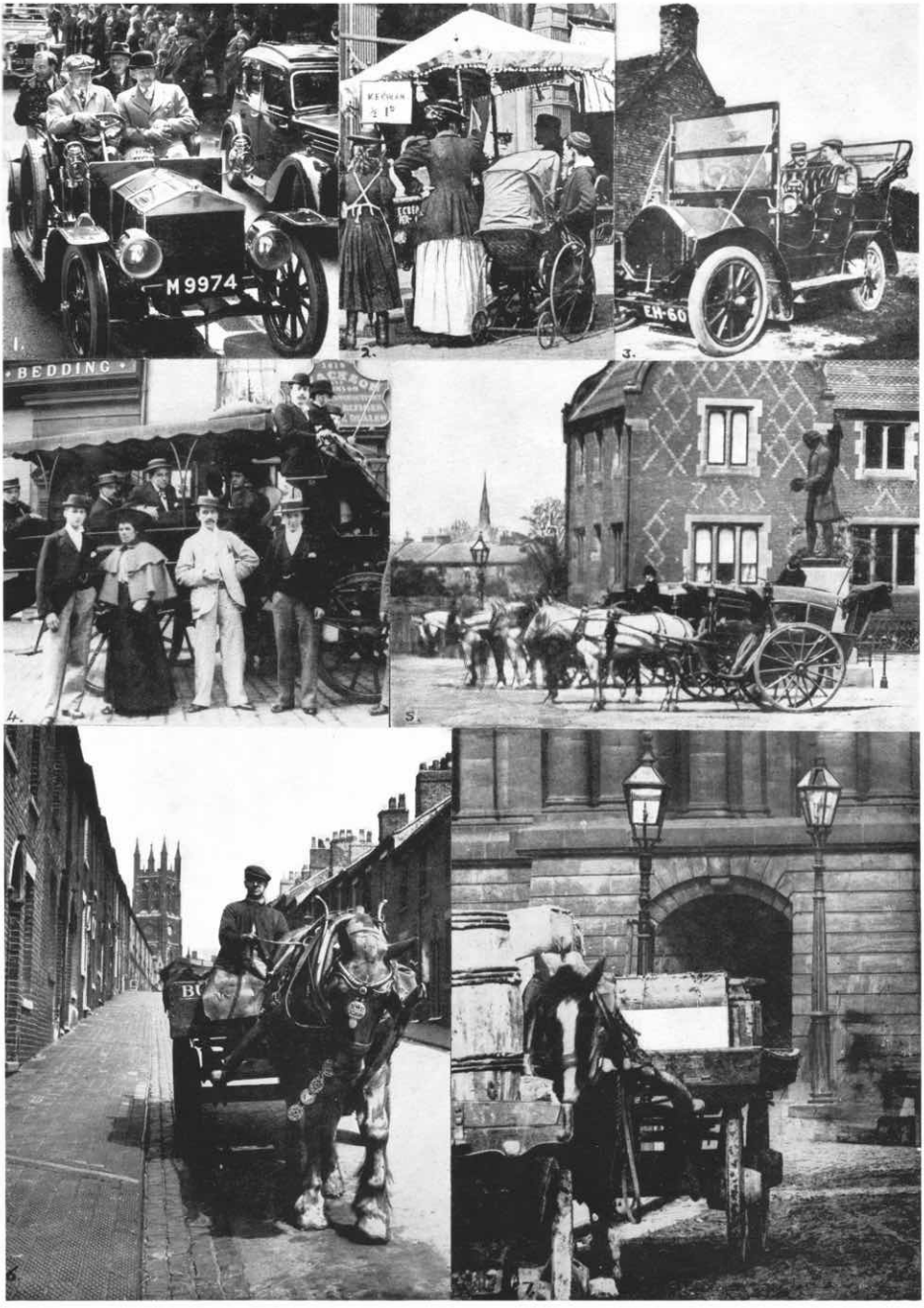
In the Potteries, by June, 1898, work was in an advanced state on the new tram line. Heavier and stronger rails were being laid down, replacing the old lines where they existed. The new lines weighed eighty-seven pounds to the yard, against the seventy-five pounds weight of the old rails. A large force of two hundred and fifty men had been at work on the task since June, 1897. The estimated cost was £26,000, from Longton to Burslem, for completion in September, 1898. The route through Piccadilly and Stafford Street, Hanley, which necessitated the construction of a tem-

porary line, along Marsh Street, Great York Street to Vale Place, was started on May 18th, 1898, and finished by the beginning of July. To do this satisfactorily, it has been necessary to lower the surface of the road by nine inches. The cost of the Piccadilly section was £4,000, with an additional cost of £300 for the temporary line. The generating station was to be at the Stoke depot and the current taken by overhead wires and conducted, on what was called 'the trolley system,' to the electric motors beneath the cars. Twenty-six cars carried out a five minute service, at a speed of eight miles per hour. Drivers and conductors were re-employed on the new cars. The total cost was in the region of £80,000.

On June 28th, 1898, the company was incorporated and was registered as The Potteries Electric Traction Company, to become better known as the P.E.T. August, 1898, saw the lines, in all parts of the district, still unfinished and the Board of Trade granted an extension of a further six months to complete the work, under the Potteries Extension Tramways Order, of 1896. At the Annual General Meeting of the North Staffordshire Tramways Company, held in October, 1898, it was intimated that The British Electric Traction Coompany, 'Has, in pursuance of the agreement, entered into, given us notice of its intention to exercise the option of purchasing the undertaking.' Early in April, 1899, during a quiet period of the day, a number of new cars were run over sections of the system for the purpose of instructing drivers in the control and management of the electrically driven trams. The first actual trial trip, over the whole route apart from extensions, was made on Wednesday, April 19th, 1899, when starting from the Crown and Anchor Hotel, Longton, at four o'clock in the afternoon, a car was taken, for the first time, through to Burslem and Tunstall. The trip was run in order that the directors could see the progress that had been made on the line. The run was first made to Burslem and it is recorded that 'the car ran smoothly, without the least hitch, or hindrance, to the ordinary steam traffic.' At Burslem, the officials took the tram along the Smallthorne extension, a hilly route, which was traversed 'without affecting the speed.' Later, following a return journey to Stoke, the car was taken right through to Tunstall. The success of the trial run proved that all was ready for the opening, which would follow the receipt of the Board of Trade certificate, which, it was expected, would be to hand in the course of several weeks.

At last, on the morning of May 16th, 1899, the inaugural ceermony took place. Great crowds inspected the new cars, which had been supplied by the Electric Carriage Works, Preston. These were fitted with longitudinal seats, carrying twenty-four persons inside and two on the rear platform. They were driven by motors, which developed twenty-five horse power. The car windows were made to slide up and down. The interior was lighted by three sixteen candle power incandescent lamps in a central cluster, with a powerful head lamp fixed on each canopy. The cars had controllers, giving a range of nine different rates of speed. Later, large bogie trams, seating fifty-two people, were used, all trams being of the single-deck type. Cars were fitted with slipper brakes, acting on the rails and operated by compressed air, in addition to wheel brakes and rheostatic brakes.

In addition to passenger vehicles, there were goods trucks for carrying coal to the power stations and cars suitable for carrying parcels and other goods. There were



For information see overleaf

1. More examples of transport and communication. Early Rolls Royce car. In 1898 a set of pneumatic tyres could cost £40 giving a mere 3,000 miles road use!

2. How baby was transported. Scene outside Hanley Market, about 1910, from a photograph by Mr. Alfred Meigh.

3. Harry Lauder (right) accompanied by Dr. John Russell, arrives in an early motor car to open the Burslem Golf Club in September, 1907. Mr. Lauder, later to become Sir Harry, gave a trophy for which members still compete. He was made an Honorary member of the Club.

4. Transport, probably from the Cleveland Stables at Shelton, with its passengers photographed in Lamb Street, Hanley.

5. Cabs at Winton Square, opposite Stoke Station, *circa* 1890. The spire in the cemetery at Shelton can also be seen.

6. A form of transport which has almost disappeared from the streets of the Potteries, photographed at Dale Hall, Burslem, in 1956

7. A cart-horse waits patiently with its load outside Burslem Town Hall, *circa* 1880.

also cars equipped to sweep the lines and to lay salt on the rails, should they become iced or snowbound in winter. At 11 o'clock, the steam trams, which had still been running up to this hour, were taken off all routes, except those on the London Road, and were placed in a temporary depot, adjoining Hanley Park.

The large gathering of Potteries dignitaries included: Sir C. Fremantle, Mr. E. Garcke (Chairman of the P.E.T.), together with the Mayors of Stoke, Hanley, Burslem and Longton, the Chief Bailiff of Tunstall, the Chairman of the Fenton Urban District Council and the Editor of the Staffordshire Sentinel (Mr. H. Barrett Greene).

The first of the three cars, on the opening run, was driven by Mr. W. Slade Oliver, Managing Engineer of the P.E.T., the second by Mr. H. B. Phillimore, engineer of the Blackwell Company, which had made the overhead wiring equipment, and the third car by Mr. W. J. Sainer, assistant to Mr. Oliver.

The cars first travelled to Longton, sand having to be placed on the rather greasy lines, to assist the cars up the gradient leading into Fenton. The whole of the route was lined with spectators, the children from the Market Street Board Schools, at Fenton, waving their handkerchiefs and cheering as the cars passed. The return journey, from Longton to Stoke, was accomplished in twenty-five minutes, after which the cars passed through Hanley to Burslem and finally returned to Hanley, the average speed being eight miles per hour.

The day of the inauguration was marred by its first and, unfortunately, fatal accident occasioned by the new mode of transport. The tragedy occurred at five o'clock in the afternoon, by Messrs. Boote's Pottery works at Burslem, when a five-year-old boy, Albert Hawley, ran from a crowd of spectators into the path of the oncoming tram-car. One man stretched out his hand and actually caught hold of the boy, but failed to prevent the car striking him down. Within an hour and a half, the youngster had died from the injuries he received.

The Power Station, inspected before the opening trip, was situated on the site of the old tram depot at Stoke, on the bank of the River Trent, and consisted of engine-room, boiler-house and car sheds. The steam of the engines was supplied by three Lancashire boilers, measuring seven feet by thirty feet, with a working pressure of one hundred and twenty pounds per square inch. The two steam horizontal tandem compound engines, which drove the General Electric generators, had a capacity of three hundred and thirty horse power. These were coupled direct to two, two hundred kilowatt, six-pole tramway pattern dynamos.

In 1900, a second generating station was built at May Bank, with a capacity of one thousand, two hundred and eighty kilowatts. Further tram depots were built at Goldenhill (also in 1900), at Chesterton and, subsequently, at Fenton, in 1905.

The trolley wire was connected to the power station at every half mile, so that in case of a breakdown, the damaged section could be cut out without interfering with the rest of the system. Each section was fed by underground cables from the main station, a current of five hundred volts reaching the trolley wire, via the feeder pillars, each of which contained a telephone connected to the depot.

After the opening run, a luncheon was held in the Victoria Hall, Hanley. Here, Sir Charles Fremantle pointed out that the directors of the British Electric Tramways Company had, in the Potteries Electric Traction Company, their 'finest child,' with

a capital of four hundred thousand pounds. The advantages of the electric car in the six towns of the Potteries were several. They were economical in working, they made little noise and were clean—at any rate compared with the steam trams. The cost of the horse-drawn tram had been ninepence to a shilling per mile, by steam one shilling and by electricity five pence and the public of Stoke and the other towns need no longer cry out in anger against the smoke nuisance. A considerable portion of the area, covered by the tramways, was known as the Light Railway. To-day, this is a little confusing, as, in actual fact, it meant that they were exactly the same as the ordinary tramways, but were called by another name, simply because powers were obtained more easily under the Light Railways' Act than under the Tramways' Act. Thus, such lines as those, planned from Blythe Bridge to Longton, from Longton along the Trentham Road beyond the Park, from the West End, Stoke, to Hanford, from Newcastle to Silverdale, from Newcastle to Chesterton and from Trubshaw Cross to Tunstall, were expected to be completed and in operation by July, 1897. In actual fact, several of them never matured. Also, somewhat complicated was the change in proprietary of the Tramways. The situation may be clarified as follows.

The British Electric Traction Company, first of all, acquired the rights and powers of the Potteries Extension Trawmay, a separate promotion. They then promoted the Potteries Light Railways. Finally, the three interests—the North Staffordshire Tramway Company, The British Electric Traction Company and the Potteries Light Railway were amalgamated into the Potteries Electric Traction Company. As regards the position of the old North Staffordshire Company, it may be said that they entered into an agreement, with the Electric Traction Company, to sell their undertaking, for a sum which enabled the shareholders to receive £5-10-0 for each £6 share, the new company taking over the whole of the liabilities and assets, the last dividend announced being six per cent. upon the preference shares and three per cent upon the ordinary shares. The North Staffordshire Railway, of which we shall learn more later in this chapter, were not benevolently disposed towards the tramways. To the contrary, they claimed, before the Light Railway Commissioners, that eight hundred thousand passengers had been lost to them during the year through the competition of the tramways already operating. Despite this plea, the tramways continued to prosper and, by the year 1901, with the twentieth century before them, the company had almost twenty-nine miles of tramways, consisting of single and double lines, with one hundred and five tramcars on them. They had carried, during that year, 13,361,778 passengers, at an average receipt of 1.32 pence per passenger, for whom 0-83 pence of this had been expended.

On Monday, March 5th, 1900, at 12.30 p.m., the line to Tunstall was officially re-opened and opened to Goldenhill. The car started from Hanley and the Tunstall Urban District Council water carts had quelled the dust of the road, on this dry March day, for the event. On the return journey, the line from Tunstall to Trubshaw Cross was also opened, a boon, by which the inhabitant were able to reach the main railway, at Longport, instead of travelling to Stoke. Thus, by 1900, the trams were operating the distance of eight and a half miles between Goldenhill and Longton.

Employed on the tramways, at this period, were one hundred and seventy drivers,

conductors and inspectors. The drivers worked a ten hour day, sometimes more, at a rate of fivepence halfpenny per hour for the first twelve months, after which the wage became sixpence per hour, or five shillings per day. Conductors were paid fourpence halfpenny per hour and fivepence after one year's service.

In addition, one could travel from Longton to Burslem for twopence! A return ticket, covering four miles, also cost twopence. The following dates, during which sections of the line were under construction, may be of interest.

Hanley to Goldenhill ...	1898-1899	a distance	of	4.58	miles.
Hanley to Longton	1899	„	„	„	4.03	„
Stoke to Trent Vale ...	1899-1905	„	„	„	2.11	„
Hanley to Longton (via Voctoria Road)	1899-1900	„	„	„	3.26	„
Burslem to Smallthorne ...	1899	„	„	„	0.80	„
Tunstall to Longport	1899	„	„	„	1.14	„
Hanley to Newcastle	1900	„	„	„	2.75	„
Longton to the Meir ...	1900	„	„	„	1.29	„
Longton to Dresden	1900	„	„	„	1.04	„
Stoke to Newcastle	1900-1904	„	„	„	2.07	„
Hanley to Sneyd Green	1903-1905	„	„	„	0.81	„
Longton to Adderley Green ...	1905	„	„	„	0.68	„
Newcastle to Burslem ...	1904-1905	„	„	„	3.68	„

Peculiarities of the district, such as subsidence, due to coal and iron stone mining, caused considerable damage to the lines, despite the fact that the lines were laid on concrete foundations and paved with granite setts on the outside of the tracks. The heavily chemically polluted atmosphere caused much deterioration on the overhead lines, which had to be watched constantly. In Etruria, the bridge over the canal had to be raised many feet to overcome subsidence, resulting in a heavy incline on the approach from the station, which, with subsequent raising of the bridge, is now quite a steep hill. During 1925 and 1926, the Victoria Road, in Fenton, was raised many feet from the surrounding swamps on either side. Damage to the lines, occasioned by subsidence and other forms of decay, were not the only difficulties encountered by the tram cars. Accidents were not infrequently caused by damaged lines, faulty cars, or the carelessness of the public. One or two instances will be of interest to to the reader. Eighteen persons were injured in September, 1922, when a runaway tramcar careered out of control and jumped the track at the bend into Brick Kiln Lane, on the route from Newcastle to Hanley. Occupants of the farm house, which stood on the elevated triangular piece of ground, still to be seen on the Etruria side of the bend, opposite the entrance to the tile works, rushed out to aid the injured. In is interesting to note that, at this date, and for some years later, a tall tree stood in the fields immediately behind the farm house. Bordered by wooden fencing, the fields to the farm completed the triangle to Garner Street and the foot of Basford Bank.

During an evening in March, 1924, a fatal accident occurred at the Granville level crossing, Cobridge, when an electric tramcar, descending the hill from Cobridge to

Hanley, pulled up whilst railway waggons passed across the main road. Although the tram had halted it started to move slowly forward, possibly due to greasy rails, and despite the efforts of the driver, who was seen frantically turning the brake handle, the car crashed through the left hand gate of the crossing. The driver, Jonathan Stevenson, of Tunstall, was thrown under the moving waggons and badly mutilated. Despite the attention of Dr. Kingsley Inman, who was promptly on the scene of the accident, he died later at the North Staffordshire Royal Infirmary.

Breakage of axles on the cars was not unknown. Such a breakage occurred in March, 1924, causing a tram, on the Stoke to Newcastle route, to leave the lines near to the Jolly Potter's Inn. The car swung across the road and collided with a tree then growing at this spot, which saved the tram crashing down the steep embankment beyond.

Carts, the drivers of which used the tram lines and stone setts, as improved roads to travel on, were another form of danger to the tram car and a source of irritation to its driver and occupants. This was especially so in the case of the two one-horse carts system, in which two carts would occupy the tram lines at the same time, the rear horse and cart attached by a short chain to the leader. The two one-horse carts system was considered by carters to be a cruel practice, but not always so by the masters. Stopping and starting was particularly painful, for the horse, who at one moment was having its head almost pulled off and the next its skull knocked in against the back of the front cart. If not this, when stopping, the shafts of the rear cart would often bang into the back of the front cart, giving a most severe shock to the poor horse, especially when travelling down a gradient.

In December, 1901, the P.E.T. Parcels Express system was devised. In the first month, some two hundred parcels per week were dealt with. So popular was this service that, after six weeks, the figure rose to three thousand parcels per week, with twenty offices in the district where parcels could be left or received. These were delivered within two miles of the tramway by a corps of youths and men engaged for the purpose. The company undertook to accept parcels not exceeding one pound in weight and deliver each in any part of London, for twopence! The charge for this same parcel by post was threepence, or by rail fourpence. The company also undertook to deliver parcels, not exceeding five pounds in weight, in New York, Boston or Philadelphia, America, for one shilling and sixpence!

After the 1914-18 War, motor vehicles began to be used on the main routes through the six towns, in competition with the trams, resulting in great congestion on the roads and causing many accidents. The motor car had, of course, been on the roads before this time, but not as public vehicles, with the exception of petrol driven refuse cars, which had replaced horse-drawn refuse carts in 1904, at a cost of seven hundred pounds each. In October, 1921, the well known firm of 'Brown's' started a petrol driven bus, in service between Burslem and Smallthorne and Norton and Brown Edge, which ran between the hours of 1 p.m. to 11 p.m., on Mondays, Fridays and Saturdays. After the war, licences were issued generously, especially to ex-servicemen, who, buying buses on the hire purchase system, would run them only at the peak periods. To such an extent did this grow that, by 1922, the corporation had to seek powers to restrict the number of buses on the roads of the Potteries. These, obtained

in 1923, gave the trams right of appeal in any unfair competition. One should not have the impression that the Tramways Company feared competition or that they had not foreseen the advent of the motor omnibus. As early as October, 1900, the first motor omnibus was purchased by the P.E.T. and, in April, 1901, two Straker Squire Steam Omnibuses were brought to the district for experimental purposes. They were not a success and were followed by three double-decker omnibuses, fitted with Mutel engines and Brush bodies and were put into service between December, 1904, and 1906, on the Trentham route. They were chain driven with an entrance and staircase by the driver's seat. Breakdowns were frequent and they were withdrawn and another single-deck bus, with open sides, was bought in 1910. From 1913 onwards, the company built up a fleet of omnibuses and had spent more than one hundred and twenty-seven thousand pounds by 1925, when eighty-six such buses were owned by them. These were used for outlying districts to which the tramways did not run. The first of these 1913 buses were forty horse power Daimlers, with bodies of the single-deck type and, by 1914, the total of Daimler buses in stock was twelve. Only the advent of war prevented a fully organised service of omnibuses. These original Daimlers were taken over by the War Office and saw service in France. In 1922, twenty-eight new omnibuses appeared on the roads of the Potteries. Sixteen were Daimlers, of forty horse-power, and twelve Tilling-Stevens, in addition to four charabancs. All were single-deckers, seating a maximum of twenty-nine passengers, on transverse wood slatted seats and with front passenger entrances. In 1925, there were one hundred and thirteen omnibuses licensed to run over tramway routes, of which twenty-seven belonged to the P.E.T. and eighty-six to other owners. Out of these, seventy-five operated on the main route. During the 1914-1918 War, many of the lorries, taxis and some private vehicles, used in the Potteries, ran on gas, obtained mainly from the Etruria Gas Works. It was a common sight to see huge balloons, on the tops of cars, flapping about in various stages of inflation. The cars worked well on gas, but lacked the power that petrol gave. Basford Bank and other such hills thus created a new difficulty and it was not unusual for heavily laden lorries to fail on the gradient and, in some cases, to run backwards out of control. A few of these cars, such as the fine 'Sunbeam' car, converted into a lorry by the gas company at Etruria, was given dignity by having its balloon, containing gas, neatly encased in a wooden box, which was also a distinct advantage in the strong winds.

The passing of the gas balloon saw the introduction of the balloon tyre and Daimler buses, the wheels of which, formerly equipped with solid rubber treads, were converted to use the new soft air-filled tyres, which, in 1926, were coming into use on buses. Such was the case also with lighting equipment, for oil lamps on cars had continued until at least 1924 and a general change over to acetylene and electric lighting was taking place. Indeed, many changes were taking place in the world of the motor car and, by June, 1927, the local registration of number EH 9999 had been reached, on a Renault saloon car, and as the regulations did not permit the use of more than four figures on the identification plate of a motor vehicle, the Ministry of Transport allotted the new index mark of VT to the district in August, 1926, and it was first used as VT 1 on a Crossley saloon car in June 1927.

In June, 1926, the Stoke-on-Trent Corporation appointed a committee to consider with the P.E.T. Company the advisability of removing the tramways, but it was not until July, 1928, that the last tram car ran, on the Hanley to Newcastle route. For the first time in sixty-six years, the streets of the Potteries were freed from the use of the trams. To take up the lines would have meant disturbing at least thirty miles of road and, therefore, in most places they were covered with asphalt and, from time to time, repairs have been made to these roads, so that they were forgotten by most people. Removal of the rails has been spread over a long period and still goes on. By 1941, the gradual process of removal had left about eighteen and a half miles of tram track embedded in the roads of the city, which weighed some two thousand, three hundred and sixty-four tons of steel. In February, 1952, it was estimated that this amount had been reduced to thirteen miles of track. In 1953, rails were removed from Glebe Street, Stoke, and major road works were taking place in King Street, Fenton, Market Street, Fenton, High Street East, Fenton, Stoke Road, Hanley, and Waterloo Road, Burslem, after which about eleven miles of track remained. At this time, the scrap steel was worth approximately four pounds, ten shillings per ton. In September, 1955, the whole of the tram tracks in Hope Street, Hanley, were removed. In October of the same year, they were taken up from Etruria Station, via the bend in the road, to the beginning of Garner Street, whilst in February, 1956, a section of the tram lines was uncovered in Upper Market Square, Hanley. Towards the end of April, 1957, work was begun removing the tram rails in Pinnox Street, Tunstall, the traffic being partly diverted. Tram lines beneath the road surface, by Hanley Station, were taken up in November, 1957, and during January, 1958, between the Orthopaedic Hospital, Hartshill, and Harpfield School. Part of the line between Burslem and Middleport was also removed during the autumn of 1957. A considerable portion of the line still exists in a number of places, such as Etruria Road, Hanley, in Brick Kiln Lane, Etruria, and in other parts of the city and it is likely to take years before all is removed as this takes place mainly during work occasioned by major road repairs.

At the time of writing, April, 1957, many of the old street lamps, on the main roads in the city, were being replaced by tall concrete pillars with modern lighting. Many of the iron standards, used for the overhead wires of the trams, continued in use for lighting purposes. Tram shelters were handed over to the Corporation. One of these, the oldest in the city, is, in January, 1958, still to be found opposite to the church at Hartshill, between the fork in the roads, although the Stoke-on-Trent Watch Committee ordered its removal in October, 1957. Just over fifty years old, this Victorian pagoda-type structure, which has been used not only as a tram and bus shelter, but as a place of rest for the aged during the summer months, is to be replaced by a concrete shelter, situated about fifty yards nearer Newcastle.

In 1933, the Potteries Electric Traction Company Limited was renamed the Potteries Motor Traction Company Limited.

During 1932-1933, double-decker buses were introduced in the Potteries and the latest types, 1957, have a capacity of sixty-eight seated persons. These new double-decker buses take on their passengers at a front entrance, the doors of which are automatically controlled by the driver.

In March, 1944, shareholders in the Potteries Motor Traction Company were asked to approve the acquisition, by the Company, of Associated Bus Companies, Limited, of Stoke-on-Trent. In April, 1944, this company, with a fleet of sixty-four omnibuses, was taken over by the P.M.T. Company.

The P.E.T. and the P.M.T. Companies have been successful financially, although increase in the price of petrol and diesel oils, especially in the years 1956 and 1957, due in no small measure to the seizure of the Suez Canal by Egypt, and rising costs has resulted in considerable increase in fares, which reached a peak in 1957. As against this, running costs for the firm had increased by over two hundred per cent. since about 1939 and, by 1957, those costs rose to at least 25.59 pence per bus mile. Between 1936 and 1939, there was a gradual increase of at least two hundred and ten per cent. in the rise in operators' wages and the average weekly earnings, in 1939, for drivers was £3-12-0 and £3-5-0 for conductors. At the time of writing, December, 1957, the average wage was, drivers £11-19-8 and conductors £11-0-5.

Desite this, there was a considerable shortage of drivers, conductors and maintenance staff. Twenty-one per cent. of the conductors are women.

To-day, the P.M.T. serves a population of over five hundred and fifty thousand people, on all routes, whilst the route mileage, within the City of Stoke-on-Trent and Newcastle, is about one hundred and thirty miles, with approximately fifty miles served by other operators. In 1956, the average cost of fares per mile was 1.62 pence. In this same year, due to accumulated grievances and the dissatisfaction of the public, many local authorities were invited to consider the possibility of setting up a public passenger service to be owned and controlled by the local authorities. The majority of those invited attended, but a considerable number did not wish to be represented. No such service was formed and, to-day, the P.M.T. carries on a vast task under difficult conditions, in which several private firms, on a number of routes, join.

It is not unusual for the P.M.T. to place fifty new omnibuses into service in a year. To deal with all the difficulties of the service, a large office staff is housed at the Stoke depot. It may be of interest to many to know that, in 1922, the Rectory House (built in 1892) and grounds, of the Parish Church of Stoke-on-Trent, were acquired and used for the offices of the General Manager and his staff. In 1937, a new wing of modern offices was attached, built on the ground once occupied by the Rectory outhouses.

To-day, most of the public vehicles are of the double-decker type, but owing to the low bridges in the district, these double-deckers run mostly on the main routes and, painted red, are to be seen all over the city, adding to the vast number of private cars on the roads, which makes the crossing of a road at the peak hours, despite pedestrian crossings, a hazardous ordeal. Largley affected by subsidence, the roads of the Potteries, in this, the twentieth century, leave much to be desired and are so bad, in some places, as to be very dangerous to a motor cyclist, especially on a wet evening in the winter.

CANALS

The waterways of England are said to be in their decline.. Many have fallen into disuse, despite the enthusiastic efforts of the few people interested in them. Never-

theless, in the towns of the Potteries, as elsewhere in the country, the canals of the eighteenth century were an important part of communications and, although not so old as the early road system, they were, in their heyday, a vast improvement in methods of road transportation.

The story of the canals in Stoke-on-Trent is as romantic as that of the roads. The rivers of North Staffordshire were not navigable and it was impossible to overcome this natural handicap of access to the seaports other than by canal. This was a vital necessity to pottery manufacturers and other local industries. A need which became more apparent in the latter part of the eighteenth century, a period when there were no railways and little road transport, despite the improvements of the turnpike roads, still a slow means of transportation.

The canal was to fill an important want, especially for bringing in of new raw materials, such as the fine china clays from Devon, Cornwall and Dorset, which were being increasingly used in the Potteries. In addition to this, there was the question of export. Road transport was slow and dangerous and breakage of ware all too frequent.

About the year 1770, considerable quantities of pottery were being sent abroad to Europe, North America, Africa, West Indies, Ireland, France etc. The need for better communications with the ports of Liverpool, Bristol and Hull became more urgent. From Bristol, the River Severn was navigable as far as Bewdley and much pottery was taken there for transportation, indeed, three waggons left Burslem each week, in 1766, conveying some eight tons of ware. These same waggons loaded ten tons of white clay and other goods on the return journey. Likewise, much was conveyed on the backs of pack mules and horses. From Hull, the River Trent, one of the rivers draining into the estuary of the River Humber, was only navigable to Willington, near to Burton-on-Trent. Flints were brought in by this route. From Liverpool, the River Mersey was only navigable as far as Runcorn and the rest of the distance to the Potteries was by horses with panniers, or by waggons. At one period, Chester had been a port used by manufacturers in North Staffordshire and the River Weaver was made navigable as far as Winsford. Pack mules and waggons took pottery ware to Winsford, which was then taken to Liverpool, bringing back clay sent by the sea route from Devon and Cornwall. It was, therefore, necessary to improve transport methods to Winsford, Willington, Bewdley and Bridgnorth. Once this was accomplished, transport costs could be reduced and breakage of ware lessened. Of these towns, Winsford was the nearest, being only twenty miles from the Potteries. As early as 1758, a canal survey had been made by James Brindley, an eminent canal engineer. The survey from Longbridge, by Longport in the Potteries, to Derby, took him twelve and a half days to complete. One year later, 1759, a further survey was made by Mr. Brindley and Mr. Smeaton, who was a Fellow of the Royal Society. The survey made was for a canal from Runcorn, via Northwich, Middlewich and through Burslem, Hanley, Stoke, Longton, Trentham, Stone, Rugeley etc. These two decided that the lie of the land was ideally suited to such a canal, with only one major difficulty, a rise of some seven hundred feet at Harecastle Hill, at the north end of the Potteries. This, James Brindley eventually overcame by driving a tunnel through the hill. It was not until 1765 that a move was made to make the cutting of

For information see overleaf

1. A full size electric tram on the Potteries route in March, 1921.

2. Snow-bound tram lines near the Orthopaedic Hospital at Hartshill. The entrance to 'Longfield Cottage' is seen on the right of the picture and the old tram shelter can just be seen in the distance.

3. Electric tram at Nelson Place, Newcastle, with the road to Basford on the left.

4. Electric tram by Wolstanton Church.

5. Omnibus and tramcar smash, photographed by Mr. J. Templeman, at the Etruria Station end of Garner Street.

6. Similar view looking towards Garner Street and Basford.

7. Electric tram at Normacot.

8. The last of the electric trams photographed by Mr. W. T. Vickers at Burslem.

9. Electric tram photographed by Mr. J. Templeman on Swan Bank, Burslem in 1925. An A.C. car and bull-nosed Morris car can also be seen in the picture.

the canal a likely proposition, when it was decided to apply to Parliament for permission to bring in a bill to cut the canal. Mr. Josiah Wedgwood, of Etruria, was a prime mover in this proposition and later a shareholder and the Treasurer to the Proprietors of the Trent and Mersey Navigation. He served, faithfully, Lord Gower, the Duke of Bridgewater, Lord Grey and other canal promoters. Both James Brindley, Josiah Wedgwood and Thomas Bentley, a close friend of Josiah, who became his partner in 1768, were all called before a committee of the House of Commons to explain the survey and project. Mr. Brindley produced his survey and Mr. Wedgwood told of the advantages of a canal to the people of the Potteries and how freight charges would be reduced, from four pounds a ton to thirty shillings a ton, by use of the canal.

The Staffordshire pottery manufacturers rallied to the cause and were the main subscribers in Staffordshire. Josiah Wedgwood himself gave a thousand pounds towards the scheme, in addition to taking a large number of shares. All this was very necessary, for the expense of getting the Act of Parliament passed was almost one thousand pounds.

In May, 1766, the bill became law. It was, 'An Act for making a navigable canal from the River Trent, at, or near Wilden Ferry, in the County of Derby, to the River Mersey, near Runcorn.' The Act stated that the Duke of Bridgewater could, if he so wished, cut that part of the Trent and Mersey Canal, from Runcorn Gap to Preston Brook. This work he carried out, with the result that the Trent and Mersey Canal was really 'born' at Preston-on-the-Hill.

A committee of twenty-one were to manage the business and their first general assembly was held at the Roe Buck Inn, Newcastle. At a meeting, held on June 10th, 1766, at the Crown Hotel, Stone, Josiah Wedgwood was appointed Honorary Treasurer and would pay his own expenses, James Brindley made Surveyor General, with a salary of two hundred pounds a year and Brindley's brother-in-law, Hugh Henshall, was made Clerk of Works, at one hundred and fifty pounds a year. It was ordered that work be begun at both ends of the canal.

The canal was not started without considerable opposition from landowners throughout the route, not the least of them being Mr. Wedgwood's own neighbours, in the district towns, who considered that his own manufactory, which was to be built on land through which the canal would run ('on the very banks of the canal'), would hold a much too important position and they reported to the committee, saying that the cutting should take a shorter course along the meadows. However, at a meeting, held at Trentham, Mr. Brindley made his report and Mr. Wedgwood's point was decided in his favour, which would result in the canal passing immediately in front of the Wedgwood works at Etruria. It is intresting to note that, to-day, this is repeated at the new works at Barlaston, although ironically the canal is little used. Such opposition resulted in the appointment of a great number of commissioners to deal with the grievances, appeals and recompense between the landowners and canal proprietors. Each one of these commissioners had a yearly salary, which added to the expense of the canal. Prospects were bright; the result in the reduction of transport charges would be excellent, maintenance charges reasonable, with an abundance of clay near at hand for puddling or lining the canal and the only real

disadvantage to the canal users would be that during severe winters it would become a frozen stretch of water. Such was indeed the case and, at one period, the good people of the six towns of the Potteries would skate from Burslem to Trentham.

To keep traffic moving, special barges were used to smash the ice, drawn by a team of horses. In severe winters, the boatmen had been known to give up the effort in despair, so quickly had the water of the canal frozen again.

James Brindley named the canal The Grand Trunk Canal, likening it to the main artery of the human body. It was appropriate that, in the North Staffordshire area of the proposed canal, Mr. Josiah Wedgwood should be asked to dig out the first few shovelfulls of earth and this he did in July 26th, 1766, at Brownhills (near to Tunstall), on a sloping piece of land, within a few yards of the bridge, which to-day bears the number of 129 and which crosses the canal. After Mr. Wedgwood had cut the turf, Mr. Brindley wheeled it away in a wheelbarrow. Many of the canal promoters took part in the ceremony, a number of whom followed Mr. Wedgwood by cutting turf, or wheeling a barrow of soil to mark the great occasion. The Duke of Bridgewater unable to be present, sent a letter of encouragement. The scene was witnessed by a large crowd, especially from Burslem and Etruria, and, in the evening, a sheep was roasted in the Burslem Market Place and guns were fired in front of Mr. Wedgwood's house—a fitting end to a great and memorable ceremony.

The canal was to be at least ninety-three miles in length and took eleven years to complete. Its average dimensions were: width, twenty-nine feet at the top, tapering to sixteen feet at the bottom, with a depth of four feet, six inches. This width and depth were exceeded in certain places. At Etruria, the canal is four hundred and eight feet above sea level, from whence it descends to the River Mersey, by way of forty locks from the River Trent and thirty-five more locks to the River Mersey. Six of the largest of these locks are fourteen feet wide. At Harecastle Hill, there are two tunnels, the first, made by James Brindley, in 1777, was 2,897 yards long by eight feet, six inches wide and lined and arched with brick. There was no towing path and men had to lie on their backs on the boat top and propel the barges through the tunnel by pushing against the roof and sides with their feet, while the horses were led over the hill (along what is still known as Boat Horse Road) to meet the barges as they emerged from the tunnel. This operation was known as 'legging,' and to take a fully laden boat, of between twenty and twenty-five tons through the tunnel by this method, took at least two and a half hours. Men, who were always to be found at the entrances to the tunnel, were ever ready, for a few pence, to relieve the bargee, by taking over the arduous work of 'legging.' During the process, fires in the cabin grates of the boats had to be put out and the only means of illumination permitted was a candle or oil lamp, the dim light accentuating the intense darkness of the tunnel. 'Legging' was made all the more difficult and trying, because there was so little head room in the tunnel. Indeed, it was impossible to bring empty barges through it and if such was a necessity the barges had to be filled with dirt as ballast and this was emptied when the tunnel had been negotiated. The tunnel was in regular use until 1914.

The second tunnel was driven through the Harecastle Hill by Thomas Telford, the eminent civil engineer, of the late eighteenth and early nineteenth centuries. This tunnel runs parallel with the Brindley Tunnel. Mr. Telford had examined the Hare-

castle Hill and Brindley's Tunnel, in 1822, on the express wish of the canal company, who were being forced by the likelihood of the railways and other canals speeding up their services. This necessitated expensive improvements. In 1825, the new tunnel was started. It was beautifully constructed and so straight in its two thousand, nine hundred and twenty-six yards length that its exits could be seen as points of light from either end. It had a five feet wide towpath and a guard rail by the waterside and was wide enough for barges to pass each other on a nine feet, three inches width of water. The tunnel, which was opened on April 30th, 1827, cost £112,581 and it was estimated that there were 8,814,000 bricks used in its construction. Fifteen air shafts were cut for ventilation. Barges were towed through the new tunnel by the barge horses. The Telford Tunnel marked a big advance, for, in addition to the extra width—it is fourteen feet wide—there is an average headroom of about nine feet, six inches, but, despite these improved conditions, there were difficulties. Some horses would not face the journey into the darkness, whilst others were too large and knocked themselves against the roof. Often, it was found necessary to lead the animals and, added to these difficulties, was the fact that the towing path was several inches lower than the water level of the canal itself. This was made necessary by the limited head room and often resulted in flooded tow paths. The difficulty of leading a frightened and restless horse along a path, hardly wide enough for both to walk on, with scarcely head room enough for a large horse to stand upright, and with water over one's boots during some parts of the journey, may well be imagined. This progress had to be made over a distance of some two thousand, nine hundred yards in prospective and retrospective blackness!

In 1954, ventilation was further improved by a system of forced draught. The electrically operated blowers are similar to those used to ventilate the Mersey Tunnel. The draught keeps the tunnel's length free of exhaust gases, caused by the Diesel operated barges, which now predominated on the waterways. Previous to this, the boats, both horse-drawn and petrol motor-powered, had to be towed through the tunnel by cable and electric motor, a system which was installed by the canal engineer, Mr. Harry Curbishley, in 1914. Appointed in 1907, he was a most capable and forceful man, accustomed to having his orders carried out to his full satisfaction.

The new system depended on a cable of four steel ropes, laid through the tunnel, with an anchorage at each end. The tug barge, made of sheet iron, was so constructed that it was permanently attached to the cable. The ropes passed through the bottom of the boat and round two grooved wheels before being attached to one of the anchorages so that the boat was inseparable from the cable. The main difficulty, encountered by the designers, was that of conveying power to drive the machinery in the boat. It had been intended to instal electric motors, but, owing to the lowness of the tunnel roof, a trolley wire was not thought to be practicible. As the current could not be conveyed directly from the generating system, it was decided to use accumulators carried in a special barge, which was linked with the hauling boat. Two of these were made, carrying one hundred and fifty accumulator cells, sufficient to meet the needs of several journeys. The power was generated by an electric dynamo plant, driven by gas turbine, situated at the Chatterley end of the tunnel and, while one accumulator barge was in use, the other would be having its batteries charged.

The haulage or tug boat was capable of towing seventeen other canal boats, each loaded with up to twenty tons of material, through the tunnel in about forty minutes —about half the time taken by a horse towed barge. At a later date, the number of barges that could be taken on tow was increased to about thirty. The hauling boat was reversed at each end of the tunnel and linked up with the waiting boats. When power-driven boats were drawn through the tunnel, engines were switched off to avoid the dangerous exhaust fumes. These fumes are now drawn off by fans, mounted in a fan house at the Chatterley entrance to the tunnel and the velocity of air, created by the fans, is greater than that of the craft, even though there be several boats in the tunnel at one period. Air-tight doors, at the Chatterley entrance, close when a boat enters and ensures that only the fumes, and no fresh air, are drawn off by the fans. These fumes leave the tunnels by fourteen-feet shafts in the roof and are discharged into the air above. The new fan house was built of stone, taken from a disused lock. Traffic, to-day, in the Telford Tunnel, is one way only at a time, the keepers at either end being linked by telephone.

Air-tight doors and fans are now automatic and operated by a robot signalling device. In addition, silt traps have been installed to help to solve the problem caused by silting up of the channel. To-day, the Chatterley entrance of Telford's Harecastle Tunnel presents a modern study in stone.

Eventually, the accumulator-powered hauling barges were discontinued and the overhead cable, which had been, at first, thought to be impracticable, was installed and, for a considerable number of years, overhead electrified trolley wires, similar to those used by an electric tramcar, carried the current to drive the tug motor boats (not the barges). This was discontinued about 1954, and, to-day, Diesel-driven motor boats go through the tunnel under their own power, towing a 'Butty' barge.

During the Festival of Britain, in 1951, the Kidsgrove Urban District Council ran trips through the Telford Tunnel. Leaving Hardingswood Lock, the first barge, drawn by a British Waterways Executive tug, electrically driven from an overhead cable, entered the tunnel. A commentary was given by Mr. G. Jones, of the sanitary department, and Mr. F. Rogers. Visitors saw evidence of old mine workings, where water gushed from the walls of the tunnel and, also, red stalactite formations, which looked eerie in the light of the naphtha flares. In the oldest part of the tunnel, where the roof level dips by four feet, there is barely room for the barge to pass between the towpath and the opposite wall. It was possible to examine some of the original brick work and see where the tunnel was hewn through solid rock. 'Gilbert's Hole,' the entrance to a disused mine working, some two thousand yards from the Harecastle end of the tunnel, was visible and, also, on the right, a connecting passage to Brindley's Tunnel. At intervals, in the tunnel, there are recesses, designed to allow a man to stand out of the way of horses passing on the towpath. To-day, some portions of the towpath are under water. In the summer of 1955, Mr. J. C. W. Dean, a Stoke-on-Trent canal enthusiast, made a film of some three hundred feet length, recording the history of the canal throughout its entire length and showing the motor system.

Returning through the years to the early construction of the canal, one would find that tremendous activity was taking place after the turf cutting ceremony and the

celebration at Burslem. The Grand Trunk, or Trent-Mersey Canal, was taking shape at Etruria, in the Potteries, where large numbers of navvies were employed in the cutting. More than six hundred men were constantly at work on the canal and seams of coal were found, in addition to other interesting geological features. At Harecastle, the rock strata was very varied and quicksand was the cause of much trouble when boring the tunnels. The stone was so hard as to necessitate the use of gunpowder. In the stone found, were fossilized plant remains.

James Brindley had planned that the canal should be completed as early as 1773, but he was not to live to see its completion, although he worked on its for six years. To a very large degree, this delay was due to the difficulties experienced at Harecastle Hill and the canal was, in fact, not finished until May, 1777, the work having to be finished by Mr. Brindley's brother-in-law, Mr. Hugh Henshall, the Clerk of Works. Mr. Henshall survived until 1817, at Longport.

It is fitting, at this juncture, to give some details of the life of James Brindley, who, as one of England's leading engineers, pioneered the canals of the country and was, of course, engineer and 'surveyor general' of the Grand Trunk Canal.

Although James Brindley spent the latter part of his life in the district and died at Turnhurst, in 1772, he was not born there. He was a native of the hamlet of Tunstead, in the parish of Wormhill, in the High Peak of Derbyshire, some three miles north-east of Buxton, where he was born in the year 1716. His education consisted mainly of reading, writing and arithmetic. Until the age of seventeen, he worked as a labourer and was thought a slow worker and somewhat stupid, although one would imagine that he was not as ignorant of writing as some biographers would have us believe. One person wrote, 'He could not make notes, but stored up the particulars in his head.' He obviously had an excellent memory. He would, after intense mental calculations and work, commit the facts to paper by writing and could correspond by letter with Josiah Wedgwood and other friends, in addition to keeping a diary, one of which is still extant.

About the year 1750, we learn that he rented a millwright's shop, in Burslem, belonging to the Wedgwoods. About 1755, he fitted a water-mill, with stamping and pumping apparatus, for draining the water out of coal mines and also grinding calcined flint for the pottery manufacturers. This, he built on an estate at Chell, then owned by Mr. Thomas Baddeley, of Newfield, an uncle of Admiral Smith-Child. It was known as 'Machin's Mill.' Unfortunately, the mill was demolished in the year 1812. At the 'Jenkins,' that part of Burslem, which, to-day, is the triangle of land bounded by the post office, to the top of Scotia Road, on one side, and from the Midland Bank and the Red Lion Inn, past the Police Station to the Vale Park Football ground. On this ground, Brindley erected a windmill, about the year 1758, for Mr. John Wedgwood. This mill, which would have stood approximately to the east of the old Fire Station, was the first of its type to be used for grinding calcined flint in water. The water used was pumped by the mill from a well at its side. To-day, this, one of the highest places in the town of Burslem, is completely covered by buildings, but would then have been an open space, over which the moorland breeze would blow to turn the sails of the mill. In 1756, he constructed a steam engine at Fenton, upon a new principle. This 'Fire-Engine, for drawing water out of mines,' he patented in 1758.

There are only a few local examples of his works, although his patents were very many. It was in the Inland Navigation that James Brindley is best remembered and he superintended more than three hundred and sixty-five miles of canal waterways. In his address to a Parliamentary Committee, he once said that, 'Rivers were provided by nature to serve as feeders to canals.' His first important canal was the Manchester to Worsley, which he cut for the Duke of Bridgewater and, incidentally, the canal was, and still is, referred to as 'the Cut.' This waterway he carried over the River Irwell at Barton by an aqueduct, which was considered one of the wonders of England, yet was ridiculed by many until it became an accomplished fact. It is still there to-day. The canal was seven and a quarter miles in length.

Mr. Brindley also cut another canal, for the Duke of Bridegwater, from Liverpool to Manchester. The canal terminated at Runcorn where the tidal waters of the River Mersey were used to complete the journey to Liverpool, an undertaking which took eleven years and was opened in 1773.

The canal through the Potteries was to be not only James Brindley's greatest work, but his final work. In 1765, when he was forty-nine years of age, he married Anne Henshall, the nineteen year old daughter of John Henshall, a land surveyor, of The Bent, Newchapel. The marriage took place at St. Margaret's Parish Church, Wolstanton, on December 8th, 1765. Mr. and Mrs. Brindley went to live at Turnhurst Hall, Pack Moor, near to Newchapel. It was at this lovely home that Josiah Wedgwood, Treasurer of the canal and personal friend of Brindley, would call, from time to time. It was here that Josiah Wedgwood came daily during the week before Brindley died. In those days, Turnhurst Hall was indeed a fine mansion, in beautiful surroundings. The Hall, considerably older than that of Josiah Wedgwood's Etruria Hall, was of Georgian architecture and was demolished in 1929. The amount of damage to the building, especially to the roof and beams, caused largely by mining subsidence, made the cost of restoration too great. It had been the home of the Bowyer, Egerton and Alsager families and it was from the last named that James Brindley rented the house. It was said to have been the last house in England in which a family fool was kept. One of the main internal features of the Hall was a fine, six feet wide staircase of English oak. The staircase, which sold for five hundred pounds, was shipped to America, but not before it was damaged by vandals, who had broken into the hall a day or so before it was to be taken away. Eventually, it was sent away in large packing cases. In March, 1951, several twisted bannister posts were brought to a Newcastle antique dealer by an old man, who offered them for sale claiming that they were from the staircase at Turnhurst Hall.

The rooms were lofty, having ornamental ceilings and cornices. Some of the rooms had been papered so many times that the paper was almost half an inch thick in places. One day, whilst leaning against what seemed to be a solid wall, Mr. Sargeant, the caretaker, was surprised to find that the paper gave way, revealing a door and steps leading to a cellar, where there were two fine old oak dressers, mildewed with age and damp, but still sound. Beneath the cellar was a tunnel. Mr. Sargeant had walked along the tunnel until the lighted candle, that he was holding, flickered and went out. After several attempts at relighting the candle, Mr. Sargeant wisely returned as the air was so foul and dank that there was obviously no outlet.

The outside of the Hall was most handsome with long and elegant windows. It was fronted by a garden wall, in which were set a pair of fine wrought iron gates. Before these was a small lake with a tiny island, which may be seen to this day. At the south-east corner of the garden was a clock tower, in which was mounted a clock with a fine copper dial, about a yard square. The clock was bought by a local man and, at one time, it was owned by a farmer on Biddulph Moor. After this we traced the copper face to Rhyl. Between the clock tower and the main roda, the experimental miniature canal locks, constructed and used by the great canal engineer, were once to be seen. Fortunately, or unfortunately, the lock gates were taken to the Science Museum in London and, in later years, the locks were filled in and are now overgrown. However, a few strokes of the spade would uncover some of the brickwork. Some of the stonework of the hall was used in the restoration of Newchapel Church.

Further romance is added, for, according to local tradition, the great composer, Handel, once stayed at Turnhurst Hall and, hearing the 'musical' strokes on the anvil at the nearby smithy, composed 'The Harmonious Blacksmith.'

It was while Mr. Brindley was surveying a canal, from Leek to Froghall, that his health became impaired. It was said that, after being out in a heavy storm, he had slept in a damp bed at the Inn at Ipstones and become very ill.

From Turnhurst Hall, Mr. Wedgwood reported, 'Poor Mr. Brindley has nearly finished his course in this world. He says he must leave us and, indeed, I do not expect to find him alive in the morning. His disorder is a Diabetes and this malady he has had upon him for seven years past, most probably which occasioned his constant fever and thirst, though I believe none of his doctors found this out till Doctor Darwin discovered it in the present illness, which, I fear will deprive us of a valuable friend and the world of one of those great geniuses, who seldom live to see justice done to their singular abilities.' The end was indeed near and the next day, September 27th, 1772, he passed away at the Hall, aged 56. Three days later, he was interred in Newchapel Churchyard, within sight of his old home.

The canals, so long as they exist, will always be the true memorial to James Brindley and his grave has been a place of pilgrimage, both by engineers and people from all parts of the world. Like so many tombs, it fell into a state of disrepair. In 1927, the Institute of Civil Engineers subscribed twenty-five pounds to have it repaired, but, by March, 1954, the tomb was again in a state of serious decay and was in danger of collapsing. A fund was started by the Vicar of Newchapel, the Rev. J. J. Williams, whose intention it was to restore the weather-worn tomb at an estimated cost of two hundred and sixty pounds. By November, 1954, the fund had reached a sum of twenty pounds, whereupon the vicar asked the author, Staffordshire County Secretary of the Ancient Monument Society, to assist in raising the necessary money by a public appeal. The appeal was made by personal letter to manufacturers in the district and others interested in James Brindley. They responded generously and these included Sir John Kent, Sir Ernest Johnson, Mr. H. Francis Wood, Sir John Wedgwood and Messrs. Twyford's.

The present Vicar, the Reverend Paisley, decided that, in view of the condition of the mausoleum and those of other members of the family, it would be more

practical and lasting to lower the head stones and to generally tidy the area. This was done, the lettering on the stone was recut, a neatly paved walk was laid down, approaching and around the grave. The area of the graveyard, surrounding the tomb, was laid with turf, with flower borders, by the Parks and Cemeteries Department of the Stoke-on-Trent Corporation, through the generosity of the City Council. The money raised had completed the work and provided sufficient money to assist in purchasing an electric grass cutter to keep the grass surrounding the grave and that of the large churchyard neatly trimmed. In addition, the author presented a large bronze plaque recalling some of the works of the great canal engineer and recording that the grave had been restored by public subscription. The work was completed in December, 1956, by Mr. W. H. Royals, of Burslem, whose interest in the work and sympathy in the financial aspect, was appreciated. The name of James Brindley is perpetuated locally in the village of Brindley Ford, near to Chell. Here, there was once a ford near to the schools, which has been taken under the ground by culvert. At Cross Heath, Newcastle, there is a row of cottages, known as Brindley's Row, and, at Chell, an inn also bore his name.

At Tunstead, an ash tree marks the site of the house in which James Brindley was born. The Brindleys were the last tenants. A young tree had forced its way through the floor of the cottage and was allowed to continue growing when the house was demolished. It is known as 'Brindley's tree.' In 1875, a monument was erected to him in the village of Wormhill, in the form of a canopied drinking fountain, set in a small plantation of holly and yew trees. It has a drinking fountain for horses and cattle, too.

In the Church of St. James, Newchapel, is a tablet bearing the inscription, 'This new church of St. James, Newchapel, replacing one ruined by mines, was opened for Divine Service, February 14th, 1880. The cost was in part subscribed in memory of

James Brindley,
Canal Engineer.

who died at Turnhurst, in the parish, September 27th, 1772, and was buried in the churchyard adjoining.'

Of the seven children born to Brindley's parents, only James, the engineer, and John, a pottery manufacturer, seems to have been remembered.

The beautiful Georgian House, in Dale Hall, Burslem, demolished within the last few years (until recently the home of Dr. C. H. Mott), was built for John Brindley and used at one time as a vicarage for St. Paul's, Dale Hall. John Brindley came to Burslem, about 1730, and, about 1772, built well known manufacturies at Longport, which he carried on for twenty years. This works was taken over by the well known firm of Davenports, who started making pottery there in 1794. At one period, James was in partnership with him in Burslem. In 1779, the Longport works was owned by John Brindley and Son, of Longport, and the fine house, adjoining the factory at Trubshaw Cross, was built by John Brindley as his own residence. The house was in Queen Anne style and was of three stories in height. To-day it is used as offices.

James Brindley was survived by his wife and two daughters. Mrs. Brindley remained

For information see overleaf

1. Benzoline fuelled chain-driven 'bus on the Trentham-Stoke route in 1904. 'Petrol' then cost 8d. per gallon. Between the years 1865 and 1896 the horseless carriage had to be preceeded by a footman carrying a red flag.

2. Electric-tram and early "main route" omnibus, No. E.H. 7901, photographed at Wolstanton.

3. Early omnibus (waggonette) No. E.H. 4, photographed at Stoke in 1903. This and No. E.H. 3, ran between Newcastle and Trentham during week-ends. The petrol engines had tube ignition (a platinum tube initially heated by a blow lamp to a very high temperature) the heat from which ignited the petrol vapour passing into the cylinders via a slide valve operated by a cam shaft. Previous to this, steam driven 'buses had been tried out by the company on this route. E.H. 2 was also owned by the P.E.T., for use by the manager.

4. Ford motor lorries in the Market Square, Hanley, January, 1934.

5. Minerva car and Daimler omnibus, photographed by Mr. J. Templeman, after a collision near Chesterton. The illustrations show that several of the first local registrations were 'buses, but E.H. 1, was a private car housed in Etruria Hall early in 1903. It was a two cylinder Panard, the carburettor of which was said to be "10 ins. × 6 ins. and took three minutes to flood."

a widow for some years after her husband's death and then married Robert Williamson, an earthenware manufacturer, of Longport, by whom she had a further seven children. Mrs. Williamson died in 1826, at the age of seventy-nine. This was fifty-four years after Brindley's death, thirty-one years after the death of Josiah Wedgwood and eleven years after the death of Mrs. Josiah Wedgwood. Portraits of James Brindley are rare, but one portrait in oils, by Parsons, belongs to the City Museum in Hanley.

The completion and opening of the Grand Trunk Canal reduced the cost of carriage to approximately one quarter of that of the land waggons. A report, published in 1766, estimates canal transport at two shillings and sixpence per ton for ten miles, whilst that of the 'land carriage,' before the canal, was eight and sixpence per ton for the same distance.

In the early days of the canal, the canal barge men called themselves 'Navigators.' Later, they became 'Boatmen,' shortened to 'Boaties.' The boatmen did not like the long periods away from their homes so the boats themselves became their homes. The canal boats were constructed with cabin accommodation at the steerage end of the boat. Many of these were beautifully equipped and kept, the exterior being painted in bright colours and with picture designs. In later years, the education authorities brought increasing pressure on the parents to send their children to school. Until recent years, the workers on the canal formed a community of their own. Often the men owned both boat and horses. Wives and families were hardy people, all of whom lived in the cabins and shared in the navigation of the barges. Large firms, using fleets of them, gradually absorbed these families and their boats into a large unit.

In 1795, the year of Josiah Wedgwood's death, a new canal was cut from Stoke, by a circuitous route, to Newcastle, a distance of four miles. Branching from the main Trent and Mersey Canal, at Stoke, it passed under Copeland Street (at the rear of the old Gordon Theatre or Hippodrome Theatre, now the Gaumont Cinema in Kingsway, Stoke), from here it passed under the main road and close by the Wheat Sheaf Hotel, an entry still marks the site of the filled-in canal and the safety guide-rail is still to be seen. The canal then emerged by the present Woolworth's store, where it was filled in, in 1939, after sewers had been laid in it. From here, it travelled by the London Road, Stoke, parallel with the high wall of the Michelin works. Proposals were made by the City Council, as early as 1934, to purchase this section of canal at London Road, Stoke, from the L.M.S. Railway and, in 1952, it was filled in and a garden was laid out by the Corporation Parks Departments. Many of the grown trees were retained and, for a distance of one third of a mile, flower beds and lawns have been laid out. This large scale undertaking called for one thousand tons of top soil, one thousand, seven hundred and fifty trees and shrubs, ten thousand bulbs and eight hundredweight of grass seed. The total area consists of two and a quarter acres and has cost in the region of seven thousand pounds to complete. A sewer has been laid to prevent recurring flooding at West End. The finished boulevard was named the Coronation Gardens, at the opening ceremony, by the Lord Mayor of Stoke-on-Trent, Alderman G. L. Barber, when he cut silken ribbons drawn across two of the entrances on May 14th, 1953. In 1904, a swing bridge, over the canal at Boothen, was erected at a cost of approximately one

thousand pounds. To-day, the site of this is marked by All Saints Road, where it branches left from the main road by Boothen Church. The bridge was considered a long felt want and a petition of the names of Stoke residents, 'measuring three yards long,' was handed to the Stoke Council, praying them to get on with the job.

Passing through Oakhill, into what was then open country, the canal followed the Trent valley and close to the west of the Campbell Road, near to Hanford. The canal may still be traced at this point and, in the summer, although only a few yards from the road mentioned, it is quite a delightful and solitary spot. This part, too, however, is rapidly being filled in. At this point, some three hundred yards from the Hanford Bridge, the canal turned in a westerly direction and continued to run along by the hawthorn bushes, still lining the site, through the tile works and under the main road in a line with the tile works and the present Summerville Road. The main road crossed over the canal, by a narrow brick bridge, with a steep fall away on the Hanford side, over which a single tram track ran. Until 1922, the scene presented a very rural aspect. Trees were plentiful, especially on the right hand side of the road on the way to Hanford, together with a flourishing farm. To-day, 1958, the outbuildings and farm house are in the final stages of decay. The corporation made a special by-pass road, to take the traffic during the widening of the old road to almost three times the original width and the levelling of the road. After passing beneath the road, the old canal turned northwards on its way to Newcastle.

At the time when the road was widened, the bridge over the then empty canal was done away with and the portion of the canal was completely filled in and became part of the main road. As late as 1871, the canal had been given a new lease of life, when the directors of the Railway Company decided that the 'Stoke and Newcastle Canal should be cleansed from end to end.' This, they declared, was largely made necessary by much sewage from Newcastle being allowed to flow into the canal. At a meeting, the directors said that they hoped the commissioners would do their utmost to prevent the sewage from private property being turned into it and that it was regretted that the Trent Purifications Bill had been thrown out, because they had no prospects of abating the very serious nuisances which promoted disorders throughout the whole district. At this same period, the Fowlhay Brook was also referred to as being 'in an offensive state owing to its being used as a common sewer by Hanley.'

Various branches were cut, from time to time, from the Grand Trunk, Trent and Mersey Canal. As early as 1773, an Act gave the company the authority to make a branch of the canal, at Shelton, through Hanley, Milton, Norton, Endon to Leek and Froghall, for the use of canal traffic carrying lime, coal and stone. Ten miles long, this canal, which is also a feeder to the Trent and Mersey Canal, branched from the main canal at the Etruria Locks, situated by the Etruscan flint mills of Mr. J. W. Shirley. It passed round the old Gas Works, on which the first House of Recovery or Infirmary had once stood. By a lock, it rose to the Bedford Street bridge and went under the Newcastle Road bridge. The canal then passed the rear of the houses in Cemetery Road, went under the bridge on the main road, below Howard Place and then along the back of the famous Cauldon Works (now the Building department of the North Staffordshire Technical College). After this, it wound through Hanley

Park and under the steep bridge at the Lime Kiln Bank and so on to Milton, etc.

On December 30th, 1947, this canal, partly owing to subsidence, broke its banks, about two hundred yards past the bridge at Howard Place and flooded not only the then derelict Cauldon Works, but also part of Hanley Park. The canal, at this point, had been affected by subsidence to the extent of almost five feet. The breach in the bank of the canal was about fifty feet and, at this point, the water level was ten feet above the old Cauldon Works. The canals coursed over sixteen miles within the city boundaries and with six of these miles above the level of the surrounding ground. The repair of the canal cost one thousand, six hundred pounds and one hundred and seventy pounds worth of damage was done to the Hanley Park. The damage was the cause of a lengthy court case. Judgement was finally given for the Stoke-on-Trent Corporation, against the Docks and Inland Waterways Executive. The corporation was allowed one thousand, seven hundred and seventy-one pounds, nine shillings, with interest and costs.

Almost at this same spot, in September, 1909, a new lock had been opened, partly as an experiment to prevent the raising of the bridge over the main road at Cauldon Place and partly 'to allow the water in the reach, between that point and the Etruria double lock, to be lowered, by easy stages of one foot, eight inches at a time, to a depth of six feet if necessary,' by which means it was hoped that the effect of the subsidence in the district, which had previously necessitated the raising of the Cauldon Place, Russell Street and Bedford Street bridges, would be counteracted, as the headway under the bridges could be maintained by lowering the water. The lock, which is situated a short distance beyond the bridge, was opened by the Mayor of the Borough of Hanley (Mr. G. F. Adcock). It was a very sturdy construction of bricks, on a concrete foundation, seventy-seven feet long and ten feet deep, by eight feet, three inches wide, with tubes for filling the lock embedded in the concrete. The lock gates, paddles and sills were made of English oak. The construction was completed under the eye of the Company's Canal Engineer, Mr. H. Curbishley, whose official launch was as much of a picture as he himself in his white ducks and peaked cap: a dignity and graciousness of a past age. It was said that the company, who, up to that period, had used boats carrying twenty tons, would allow loads of thirty tons in future on this canal. Despite the depression in the inland waterways, thousands of pounds were spent on this canal (Cauldon), in 1955, in dredging and repair work.

In 1795, further branches of the canal were cut from Shelton to Cobridge, from Longport to Dale Hall and from Sideway Hall (near Trentham) to Longton.

Many inns are to be found in the district, situated near, or by, the canals. At these inns were stables for the barge horses and accommodation for the 'navigators' should they wish to stay overnight. Some of the inns have commemorative names, such as: The Duke of Bridgewater Inn and the Packhorse Inn, at Longport, and the Navigation Inn, which was built on the site of the Boatmen's Church, at the canal side at Etruria and now incorporated in an iron foundry. Here, the inn, once level with the canal, is now well below it, having sunk many feet due to mining subsidence. It was within a few hundred yards or so of this inn that the canal engineer's house stood, almost opposite to the present locks. From time to time,

subsidence and other leakages reduced the water in the canals. Fortunately, there was a plentiful supply of water for replacement. Situated in a valley, the Potteries and district drew much of its water from many streams, which flowed in from the moorlands and some of these streams were dammed to form reservoirs, specially built to ensure that the canal should have an adequate supply of water. One of these, at Knypersley, is a rural 'beauty spot.' The other, Rudyard Lake, made in 1793, is a local holiday resort. It is quite deep at the dammed end. The lake was widened and deepened in 1907. The lake is two miles long and, except in exceptionally dry periods, it is a fine expanse of water. In the drought of 1933, it presented a remarkable appearance, when at least three-quarters of it became dry and one was able to walk over much of the bed of the lake.

Until the coming of the railways, the canal had been very successful. A survey, taken for the year ending June, 1836, showed that 185,000 tons of material and merchandise were shipped by the canal to and from Stoke-upon-Trent. Of this the largest tonnage was clay and stone from Cornwall and Dorset, this being around 70,000 tons. A further 30,000 tons of flint stone came from Gravesend and Newhaven. 7,000 tons of iron came by barge from South Staffordshire and 7,000 tons of grain and flour from Liverpool. In addition, there were many chemicals (used by colour merchants for the pottery industry) as well as butter, bacon, wines, spirits, timber etc. The total of imports was almost 144,000 tons for the year.

The branches that were cut from the main Trent and Mersey Canal were the source of a considerably increased revenue and upwards of seven hundred barges passed the summit lock at Etruria each week. From a survey, taken in 1937 (i.e. a hundred years later), 107,000 tons of potters' materials came to the Potteries by water. By 1952, this figure had dropped to 25,000 tons. One year later, in 1953, the gross tonnage of all goods carried to the Potteries had declined from 104,000 to 89,000 tons. Vital as the canal had been for carrying coal, it fell in 1953 to 12,623 tons, a reduction of 10,000 tons in two years. Despite the fall in revenue, the Board of Survey of the British Transport Commission recommended that the Trent and Mersey Canal should be retained so long as the tonnage carried justifies it and for so long as it forms part of a through route. To-day, china clay, brought by sea and canal from Cornwall, reaches the Potteries in an average time of four to five days, at speeds up to three and a half miles per hour. Transport is continuous by day and night and it is still the cheapest form of transport.

In 1865, the Anderton Canal Company and the Bridgewater Trustees, general carriers by fly-boat, were working a canal service daily between the Potteries, the South Staffordshire Iron Districts, Birmingham, Liverpool, Manchester, Runcorn, Preston Brook, Anderton and surrounding towns.

Their stations in the Potteries were: Tunstall Wharf, Longport Wharf, Etruria Vale Wharf and Stoke-upon-Trent Wharf.

In March, 1871, the Traders (North Staffordshire) Carrying Company Limited was established. This firm was to use a new route from the River Mersey to North Staffordshire, via Weston Point, the River Weaver and Anderton and vice versa. This route was used for the transit of raw materials and manufactured goods by the Traders Company, until 1874, when the company collapsed.

In the year 1888, an effort was made to secure the construction of a canal for steam vessels, between Birmingham and the Mersey, via Stoke-upon-Trent and Winsford, but the project was abandoned. In 1891, the North Staffordshire Railway Company obtained Parliamentary powers, for widening the canal from the Potteries to the River Weaver Navigation and, in 1892, work started on widening the first section of the canal, from Middlewich to Anderton, where it was planned to make the canal some forty-five feet wide with a uniform depth of six feet, in order to allow the passage of steam barges carrying between eighty to one hundred tons. To-day, barges on the Mersey Weaver Canal carry up to twenty tons, a figure that needs to be increased up to thirty tons to be economic.

Not only were the wharfs in the Potteries used for conveying merchandise, but also as assembly points for passengers. The yearly 'pilgrimage' by barge to Trentham, which took place on 'Trentham Thursday' (Thursday following the August Bank Holiday Monday), was a long awaited event for the children of the six towns and were memorable occasions.

Trentham Park and Gardens are now open to the public. Trentham Thursday is, in reality, little more than a name surrounded by the aurora of a bye-gone age.

Between 1845 and 1850, it was a common event to see folk leaving the wharf at Etruria on the first stage of their journey to various parts of the world. Some of these people were the first emigrants to 'Pottersville,' a 'colony' in Wisconsin, U.S.A., in a scheme which was brought about in the Potteries, in 1846, by unemployment and distress, due largely to the increased use of machinery in the pottery industry.

The death of the Duke of Bridgewater, at his home in Cleveland Row, London, in March, 1803, marked the end of an era in canal history, for, on his death, the Dukedom became extinct, but the peerage of Brackley and the estates descended to Gerald Egerton. Even in those days, the Duke's income was about £110,000 per year, the greater part acquired by his exertions and 'derived from circumstances of the highest National benefit. He died amazingly rich and worth large sums of ready money.' It was said that in his will he left all his immense property in a very clear and circumstantial manner. His canals were left to Earl Gower with reversion to his second son.

To-day, the canal system of England is at the 'cross-roads' of its existence. Competition came from road transport, railway and air transport, which are generally much quicker. The horse has almost disappeared from the towpaths and engine driven barges are able to take at least another barge in tow. Despite this speeding up, the canal is not considered to fit into the modern pattern of transport and the future is uncertain despite the efforts to preserve them by the Inland Waterways Association, whose main object is to secure their maximum use and development. A Longton pottery manufacturer, Mr. Christopher Clifford, has covered great distances on the canal in his barge, Danube, which he has converted into a floating showroom for his ware, thus combining business with pleasure.

The main canal through the Potteries is still fairly well used. Repairs to locks and canal are regularly carried out. Silt and rubbish presents a problem, which members of the public could help to solve if they refrain from emptying their refuse into the canal. One has seen bicycles, kettles, buckets, bedsteads and other household imple-

ments in the canal in the heart of the city.

In Etruria, the subsidence has caused the side of the canal to sink many feet and concrete has been added in great quantities to the original stone blocks of the side, which are now far below the surface. In addition, the wash created by motor boats causes damage to the banks of the canal which are, in the main, composed of clay and earth. Bridges, sinking through subsidence, present a difficult problem.

Picturesque and perhaps somewhat slower as a whole in mode of transport, one feels that the canals of British Waterways, especially that part effecting the six towns of the City of Stoke-on-Trent, can still be of great advantage for many years to come.

Railways

The railways of North Staffordshire are closely allied to the canal and those, who wish to follow in detail the history of the railway system, could do no better than to make an extensive study of The North Staffordshire Railway in that most instructive book on railway history by Messrs. J. R. Hollick, C. A. Moreton, G. N. Nowell-Gossling, F. M. Page and W. T. Stubbs. This is a book to delight the railway enthusiast.

The old Swan Inn, Hanley, once situated where the present Market Hall stands, was the venue for many an important conference, having far reaching effects on the present City of Stoke-on-Trent. Later in this history, we shall hear more of this once important old inn.

It is fitting and pleasing to record that it was at this hostelry that the proposal for a Potteries Railway was first brought forward at a meeting with Mr. Richard Edensor Heathcote, of Longton Hall, in the chair, on February 11th, 1835. Invited to this meeting was Mr. George Stephenson, the Father of English Railways, who was asked to make 'a rough survey of the district.' It was realised from the first that there would be great opposition from the canal proprietors (the Duke of Bridgewater's canal alone brought in an annual income of one hundred thousand pounds). It is then not surprising that, whilst surveying a route, he ran the risk of 'being attacked, beaten up, or ducked and his instruments smashed,' by loyal canal workers. Self educated in many ways, the life of George Stephenson was similar to the life of James Brindley. Mr. Stephenson died in August, 1848, at the age of sixty-seven. Four months before his death, on April 3rd, 1848, the first goods train of the North Staffordshire Railway ran between Stoke and Norton-Bridge and Stafford, to be followed, on April 17th, by the first passenger train. Although George Stephenson had made his survey in 1835, it was not until June, 1837, that a Bill, for a line from Manchester to Stafford, through Stoke, was successfully promoted, under the titles of the Manchester and Birmingham Railways. Difficulties arose, however, resulting in the abandonment of the Manchester and Birmingham Railways plan for their main line and their concentrating on a line from Manchester to Crewe, with a branch to Macclesfield. As money became more plentiful, in 1844 and 1845, plans were made and Acts were obtained in 1846, under the guidance of Mr. John Lewis Ricardo, M.P., Member of Parliament for Stoke-upon-Trent.

The Acts provided for lines to be laid from Macclesfield to Colwich via Stoke, from Stoke to Burton-on-Trent, North Rode to Uttoxeter, Norton Bridge to Stone

and Harecastle to Crewe and Sandbach.

The North Staffordshire Railway Company held its first meeting at Stoke on September 23rd, 1846, with Mr. Ricardo in the chair. The day was historic and a public holiday had been granted in the towns of the Potteries to herald the cutting of the first sod of earth at Stoke. In the afternoon, the long procession to the site of the ceremony was graced by Viscount Ingestre and Mr. J. L. Ricardo, chairman of the company, who was to perform the ceremony. Borne behind them by four navigators, was the beautiful ceremonial barrow of polished mahogany, carrying the ornate silvery spade and bearing, on both its sides, Minton china plaques on which were the crests of Mr. Ricardo and Viscount Ingestre. The sod, we are told, was cut with 'some difficulty,' for when Mr. Ricardo made the first thrust with his foot on the spade it doubled up. In the evening, public dinners were held and a grand ball was held in the Town Hall. In addition, there was a firework display which, it was said, was attended by fifty thousand people.

The terms of the Railway Acts of Parliament, of 1846, required the North Staffordshire Railway Company to take over the Trent and Mersey Canal Navigation Company and when the business was completed by January 15th, 1847, the canal and railway became linked together. The first portion of the line completed was that from Stoke Station to Norton Bridge and was opened first to goods traffic and officially for passenger traffic, on April 17th, 1848, using a temporary station at Whieldon Grove, between Stoke and Fenton Manor, which is still used for other purposes. The authors of that instructive volume, *The North Staffordshire Railway*, quoted an eye-witness account as the first passenger train left the Whieldon Grove Station, drawn by No. 1 engine, 'Dragon.' There were 'several engines of Stephenson's patent design, with four huge driving wheels . . . magnificent carriages, with six wheels and four compartments, each compartment having four lamps and the carriages being painted claret with a Staffordshire Knot in gold.'

Stoke Station, built on part of an area of land known as Winton's Wood (a name of considerable antiquity), was built at a cost of approximately thirty thousand pounds. Here, were to be found canal offices, Directors' Board Room and everything required for a first class railway station.

In the early days of the railway, Stoke Station had more trains passing through it than any other two platform-one-bay station in the country.

The main station for the towns of the Potteries was, at its best, a distinguished and cheery place. In the entrance hall, was a large fireplace, which, in winter, contained, at all times, a huge blazing fire. 'It was a grand sight. Its radiant warmth was shared and appreciated by many a cold and weary wayfarer. It was the sort of fire, which, in these days of restriction (1947), one dreams about. It could not be said of the old "Knotty" that it was unmindful of the comfort of its passengers.' 'On Thursday and Saturday evenings, the station resembled a fashion parade. One saw the elite of Trentham, Barlaston, Stone, Stockton Brook, Endon etc., influential patrons of the Theatre Royal, Grand Theatre or celebrity concerts, strolling up and down the platform, waiting for the last trains to their respective destinations.'

Everything on the North Staffordshire Railway was up to date and it was one of the first to equip its carriages with electric light and to build the North Stafford

Hotel, about a year after the opening of Stoke Station. The carriages were spacious and the leather seats comfortable and, although, in the early years, only dimly lit by oil lamps at night, were well up to the standard of comfort for the period, although an old traveller on the line advised one to be careful to 'avoid, if possible, a journey in a third smoker (circa 1900, leather seats, oil lamps and sawdust covered floor), full of colliers returning from the pit, all of whom would be smoking twist. By comparison, the atmosphere of the Crown and Anchor Vaults, on a Saturday night, was almost sanitorium purity!'

Loop Line

Perhaps the most fascinating railway, to the true native of the six towns of the Potteries, is the loop line railway.

Immortalised by Arnold Bennett, in his novels on the Five Towns, it has been the subject of several short stories, lending to it romance to be coupled with the fact that it was to be the Potteries own railway.

In the year 1854, a number of meetings were held in the various towns to discuss the important possibility of a line through the towns and villages lying on the north-eastern side of the Potteries, from Stoke via Etruria, Cobridge, Burslem, Tunstall, Goldenhill to Kidsgrove, a distance of just over six miles. A meeting was held in March, 1854, in the Town Hall, Hanley (then on the site of the present Lloyd's Bank), with the Chief Bailiff (Mr. John Dimmock) in the chair, Messrs. W. Brownfield, T. C. Shaw, S. Keeling, R. Stevenson, H. Pidduck, S. Taylor, J. S. Forbes, W. H. Yates, J. Dixon and many members of the general public present.

It was pointed out that the North Staffordshire Railway Company had already projected a line and a Bill, authorising its construction, was then before Parliament. Such a line, said the Chief Bailiff, was highly desirable and he did not think that the people of Burslem would persist in their opposition. Mr. Shaw, surveyor, then submitted a plan for the projected line. Mr. Shaw's plan showed the proposed railway leaving Stoke Station, between the hotel and the Shelton turnpike road, over the new road leading to the station. It then went across St. Anne Street, skirting Mr. J. Ridgway's grounds, under the Cauldon Canal, between Mr. Ridgway's manufactory (old Cauldon Works) and the lime kilns, where an open cutting to Cannon Street would bring it to the back of Messrs. Yates' manufactory in Shelton. At this point, he proposed a tunnel of two hundred yards, under Oxford, Cambridge and Broad Streets, in which last named street, and near the house occupied by Mr. Weir, he would give a Shelton Station. The line would then proceed through the brick field of Mr. Ridgway, under the tramway from Etruria to Hanley (this being the track from Etruria canal wharf to Trinity Street, Hanley), under Mill Street and into Boothen Valley, to the bottom of Hope Street. At this point, the road would be raised about six feet by the bridge that he proposed to build over it. The line would then proceed between Robinson's brewery and Miss Adams' disused collieries, at which point he proposed a station for Hanley and Cobridge. From thence, a curve behind the field, on which Earl Granville was at present building cottages for his workmen, would bring the line into a valley through which a brook course skirts Mr. Brownfield's manufactory (at Cobridge). Here, he proposed a tunnel of some

For information see overleaf

1. View of the canal taken from a Loop Line train at Etruria. Also seen are old motor car tyres in front of the Dunlop (old Wedgwood) works, June, 1957.

2. Repairs being carried out on the Cauldon Canal which broke its bank at Shelton in December, 1947.

3. Autumnal scene on the canal at Etruria, 1955.

4. Horse and motor driven barges on the canal at Etruria. Etruria Hall is seen in the background, (1950).

three hundred and fifty yards that would open into the Hole House Valley (the Sneyd area of Burslem). The site selected for a station at Burslem was where the machine-house of Messrs. May's Colliery stood. The line would continue in the valley, past the pool known as the 'Keep off' (between what is now Warwick Savage's Printing Works and the foot of the Hamil Road) and leaving Mr. Wood's house to the left, the line would then proceed almost in a direct line for Mr. Bower's manufactory, where, in the field opposite, would be the proposed station for Tunstall. A tunnel from this point, under Mr. Haywood's house and grounds, of about two hundred and sixty yards, would open into the valley, through which the main line of the North Staffordshire Railway ran. The proposed line would have run into the North Staffordshire Railway, at or near a bridge, over their railway, carrying the road from Tunstall to Bradwell, nearly opposite Mr. Peake's works. Although this proposed route is difficult to follow to-day, it makes an interesting comparison with the route that was eventually taken. The distance of this proposed route was four and a quarter miles.

It was estimated that twenty thousand tons of grain and provisions, forty thousand tons of building material and two hundred and seventy thousand tons of coal and ironstone, would be carried on the line each year. It was estimated also that as a result of this tonnage carried the line would save the expense of the use of three hundred horses. It was thought that one hundred and fifty men, employed in transport in the Potteries, would be displaced. The canal would not, it was thought, be greatly affected. Mr. Shaw also thought that this total estimate of seven hundred and thirty thousand tons of traffic could be carried at the average rate of sixpence per ton, bringing in over eighteen thousand pounds per annum. Mr. Yates pointed out that the people of Burslem were endeavouring to obtain a branch line themselves and would not take part with Hanley in obtaining railway accommodation. At the meeting, there were differences of opinion, which only resulted in a committee being formed, 'for considering the best means of obtaining railway accommodation for Hanley and Shelton.'

At Burslem, also in March, 1854, a meeting was held at the George Hotel. Here, it was pointed out that the total rateable value of the manufactories of the Potteries was £20,000, of which Burslem represented £3,014; Tunstall £2,007; Cobridge £1,029 and Dale Hall and Longport £2,070, making a total of £8,120 for the district, or in other words, four-tenths of the whole. Most of the discussion concerned the advantages, or disadvantages, in cost, of carriage to the town.

Four years later, in September, 1858, meetings were still being held by members of the town councils, particularly in Hanley and Burslem. Members of the Hanley committee had covered the ground on which the company's tramway ran, from Miles Bank to Etruria (this being the Trinity Street line, already mentioned in this chapter), with Mr. Forsyth, the North Staffordshire Railway Company's Engineer, with the result that Mr. Forsyth intended to report favourably with regard to a line running in that direction. The majority of the residents of Hanley were in favour of a station being built, 'on the ground at present (1858) occupied, in part, by several wretched huts, used by marine store-dealers,' at the lower end of the Market Place, Hanley. A week or so later, Councillor Yates, secretary of the Railway Accommodation

Committee, reported that a fourth site for the station had been proposed, namely a piece of land comprising 10,595 square yards, belonging to Mr. Clementson and lying between his works and Clough Street. It was also pointed out that Burslem and Tunstall were beginning to move in a similar direction and it was thought fortunate that Hanley had made the first application for railway accommodation. The people of Burslem and Tunstall were anxious to have a loop line. Late October brought further news of the proposed railway. Councillor Simpson inquired what course it was proposed the new line should take and Alderman Brownfield replied to the effect that the idea of the engineer was to run up as far as Miles Bank, and to go down the tram road as far as the Infirmary, (then situated on the Wood Hills, a delightful spot, to the east of the road to Etruria Vale—approximately adjacent to the Hanley end of what is now Etruria Park) by the ice-house. It would then go under the road near the toll gate (which then stood approximately in the middle of the present road, opposite to the entrance to the Etruria Park, where the roads fork from the main road to Shelton and Stoke; it was demolished in 1904), into the company's line (near Etruria Hall) and over the canal into the main line.

It was suggested that they should purchase Mr. Jervis's property in Hanley, some two or three outbuildings and a yard, or a yard and a half, of land in front of the Eagle Foundry yard (the site of the present Odeon Cinema) and continue the railway past Brockley's House, down to the bottom of Brockley Square. It was suggested that the passenger station should be on the ground occupied by Mr. Brockley's marine stores, on Miles Bank, and the goods station as near to Marsh Street as possible. It was thought that after this meeting of the Hanley Council, in October, 1858, all would be well and that, to quote Councillor Yates, 'the question of the railway is now settled,' and Councillor T. Pidduck expressed the hope that the Board of directors (North Staffordshire Railway) would lose no time in obtaining the consent of Parliament for the construction of the said line.

Five years later, however, the matter was still anything but settled. In July, 1863, the directors of the North Staffordshire Railway had, at length, devised a scheme for meeting the objections, hitherto held by the Government Inspector, against a Hanley branch line for passenger traffic. The objection was the danger of the use of a drawbridge to carry the line over the canal at Etruria. To avoid this, the directors proposed to divert the course of the canal for a short distance, by taking it through the rising ground nearer to Hanley, in such a way as to admit of the construction of a permanent bridge and, further, to provide an additional line for the traffic between Etruria and Earl Granville's works. The work was to cost approximately £3,000.

Consternation was caused in Burslem, in March, 1864, when it was considered that a line, planned by the 'Shrewsbury and Potteries Junction,' would materially interfere with the approaches to the town. The Parliamentary Bill for this railway was strongly opposed by the North Staffordshire Railway and it was eventually withdrawn leaving the field clear for them. Nevertheless, the proposed Potteries Junction Line, from Hanley to Tunstall, is an interesting record.

The line was to begin in Mill Street, Hanley, cross Earl Granville's colliery and railway to Cobridge, pass under the turnpike road, near Cobridge Toll Gate, over

the old race course (on the Grange) to enter the district of the Burslem Local Board of Health, at the boundary of Grange Farm, in the Ville of Rushton Grange, where it was to cross the footpath from Burslem to Etruria. It was then to pass, in a nearly straight line, on the west side of the farm buildings at the Grange, where it was to cross the footpath leading to Middleport, on an embankment, fifty-four feet high. It was then to go over Navigation Road on a viaduct, which would continue across Amicable Buildings, Rope Walk Road, Peel Street and Furlong Lane. The line was then to be carried on an embankment, in front of the houses of Mr. Ward and the Misses Ryley, in Newcastle Street (the latter house is no used as an educational school and was last used as a residence by Dr. King Alcock), by an arch, of thirty-five feet span and thirteen feet high. It was intended, in order to obtain enough headroom, to lower the road five feet and make the inclination one in eleven, until it had passed under the arch. It would make the ascent of Newcastle Street into the town extremely difficult for the large amount of traffic, in addition to which it was said that the arch of thirty-five feet would not be sufficient to span properly the street, which was forty-eight feet wide at the point of crossing. It would cause an obstruction of thirteen feet on this important road. After this point, it was to cross Lyndhurst Street, at a height of seventeen and a half feet (but the plans did not show how this was to be effected), after which the line was to pass over vacant land between Lyndhurst Street and Fountain Place (which was then a dumping ground for shards and other waste), where it was intended to build the Burslem Station. Hill Street, the Burslem Councillors declared, was ignored altogether, which was a street, sixteen feet wide, leading from Liverpool Road to St. Paul's Church. The line was to continue by crossing the Sytch Street, by way of an embankment, thirty-two and a half feet high, after which it was to cross Back Sytch, by an arch of twenty-five feet span and fifteen feet high and across the front garden of Mr. Harley's house, in Liverpool Road (now Westport Road), where the embankment would be ten feet, seven inches high. It was intended to cross the road by an arch of thirty-five feet span and sixteen feet high, again narrower than the road itself, and to accomplish this it was proposed to lower this important thoroughfare seven and a half feet and the gradient proposed was to be one in ten, making the hill, then already difficult to ascend, almost insurmountable. It was claimed that these alterations would destroy the northern and western approaches to the Town of Burslem. From Burslem, the proposed railway was to have continued over an embankment twenty-two and a half feet high, across the road leading to Wood's and Hughes' property, and across the property intervening, over Mr. Williamson's private land by an embankment and so to the boundary of the district of the Burslem Board of Health. From thence it would go over the foot road, leading from Greenhead to Greenfields, and over Mr. Williamson's private line of railway (on a viaduct fifty feet high), through the Tunstall district to a point about half a mile east of the Market Place.

On July 13th, 1864, the railway line, from Etruria to Hanley, for passenger traffic, known as the 'Spur Line' (a spur from the main line), was opened. At Etruria, in 1863, a large gang of workmen were employed on this line. They altered the course of the Fowlea Brook to make the ground more solid. The railway bridge was

enlarged and the foot of Basford Bank was filled in and levelled. It was in this area during this alteration, in 1877, that the skull and horn cases of the Bos primigenius were found. Remains of the Urus (forerunner of the domestic cow), said to have been the most important wild animal living in this country during the pre-historic period, have been found from time to time in the peat bogs of England and Scotland. According to Professor Rutimeyer, 'This gigantic Urus, brought here by pre-historic man, and which reverted to feral conditions, may have lived on in this country.' The skull was found near Etruria Station, at a depth of fourteen feet. The length of the horn cores was over thirty inches and the circumference at the base was sixteen inches. They were preserved for many years at the Stoke Library. All trace of them has now been lost.

The station, at Etruria, was then situated between the main line and the spur line, at a point where it forked towards Hanley. It was later rebuilt upon its present site.

The spur line had its course through the delightful meadows of Etruria and ran by the side of the Fowlea Brook, its clear waters full of fish and its banks lined with willow trees. The line passed by the newly erected blast furnaces of Lord Granville's iron works and a bridge was built to take it over the canal by the Wedgwood pottery. To-day, this bridge presents a problem for the canal and railway engineers, as it sinks lower and lower, in common with much of Etruria. At the time of writing, the banks of the canal, by the old Wedgwood works, are being raised with fillings of concrete and the headroom under the bridges becomes less and less. The line then passed through what was, at the time of the opening, the extensive and well wooded park of Etruria Hall. It then went under the turnpike road, between the toll gate, at the top of the Etruria Grove of trees, and the old Rose and Crown Inn past the House of Recovery, which stood opposite to the present Etruria Park, at the top of Etruria Vale. At the time the railway line was opened, this was known as The Wood Hills and was true to its name. The length of this first section of line to Hanley, which was to become the first portion of the loop line, was one mile and seventeen chains in length.

The opening of the line, on Wednesday, July 13th, 1864, was without ceremony. The directors had arranged that thirteen trains should be run each way throughout July. Five would run on Sundays. None of these trains stopped at Etruria Station, but were timed to meet most of the principal trains at Stoke. The first Hanley Station was erected on ground opposite to the present Grand Hotel. The station premises are now mainly used as wholesale fruit warehouses. It was considered to be an unpretentious but convenient erection and was a typical station of the period in the district. During August, 1864, fourteen trains ran daily between Hanley and Stoke and, of this number, nine ran through to Fenton and Longton. Also during this year, a station was opened at Bucknall for residents on the south-east side of Hanley.

The railway and the iron works were both to assist in destroying the sylvan beauty of Etruria and it was not surprising that just one month before the opening of the Spur Line, the committee of the North Staffordshire Infirmary, or House of Recovery, decided to remove the Infirmary to a new site at Hartshill.

In October, 1864, deputations from the Hanley Town Council and the Burslem and Tunstall Boards of Health met the directors of the North Staffordshire Railway, for the purpose of bringing under their notice the desirability of constructing a loop line connecting the towns of Stoke, Hanley, Burslem, Tunstall and Kidsgrove. The deputation considered that the practice of constructing spur lines, like that for Hanley, was exceedingly unsatisfactory and compelled the population to travel in order to reach the railway. It was pointed out that there had always been great engineering difficulties to overcome in any loop line scheme, as most of the Pottery towns stood upon hills and were divided from one another by broad valleys, so that costly viaducts would be necessary in the construction of a loop line. On October 14th, the Chief Bailiff of Burslem received a note from the meeting of the directors of the North Staffordshire Railway, held on the previous Wednesday, stating, 'That this Board has every desire to meet the views of the manufacturers and inhabitants of Tunstall, Burslem and Hanley, in providing ample railway accommodation for their convenience and have instructed their engineer to ascertain the extent of the the requirements; how best then can be provided and what assistance may be expected in the acquisition of the land upon reasonable terms, with a view to an application to Parliament in a future session for the necessary powers.'

Parliamentary Powers, for the purpose of Making and Maintaining a Loop Line of Railway, in connection with their railway through the Staffordshire Potteries, were sought by the North Staffordshire Railway Company, in November, 1864. During the same month, a deputation from Burslem met the directors of the Railway Company and submitted a plan and section by Mr. Hales, the Town Surveyor, of the proposed route through the district.

In February, 1865, the Railway Company reported that the directors had introduced a Bill into Parliament to authorise the construction of a line of railway, a little over six miles in length, from the Hanley branch, passing near the centres of the towns of Burslem and Tunstall and joining the main line near the Harecastle Station. This Bill for the loop line, presented to Parliament, was sanctioned during the year, but, owing to the depression caused by the American Civil War, matters were slowed down. Although working drawings were being prepared for the contractors, in February, 1866, it was decided that the Burslem Station be more to the east of the town in Moorland Road. In Hanley, during November, 1866, the Railway Accommodation Committee interviewed the railway directors with regard to the position of the new Hanley Station. The plan showed that it would be near to Mr. Hinde's rope-walk in Mill Street (Etruria Road).

In Longton, in June, 1867, alterations began on the passenger station, where a block of buildings in the Market Place were taken down, in order to afford an external approach to the down platform. Plans of reconstruction included two independent staircases on each side of the station, the improvements, which included waiting rooms on each platform, were to cost one thousand, three hundred pounds.

At Tunstall, in August, 1867, the further works authorised by the 'Tunstall Line Act, 1864,' and by the 'Potteries Loop Line Act, 1865,' comprising a capital of £366,000, with borrowing powers of £122,000, were not to be carried on 'for the present.' This was an ominous sign and it was due largely to the American Civil

War that such signs appeared. The effect on trade was bad. Railway receipts were falling and railway companies, in common with others, were treading carefully so that, early in February, 1868, it was proposed to abandon the Loop Line. The directors claimed that they could not raise the necessary money and among the improvements to suffer would be the proposed doubling of the single line of rails between Hanley and Etruria. Regret was expressed in Hanley and bitterness in Burslem and many said that if the North Staffordshire Railway Company was in a poor state financially it was due to mismanagement. Despite such unfair statements, the company made many improvements. In May, in Hanley, the waiting room on the station was converted into a booking office, the entrance to which was from the side, parallel to Mill Street, and the exit by a flight of steps leading to the platform. A new office for telegraphic purposes was erected near to the entrance and a cloak room was built. Nevertheless, despite deputations, public meetings, criticisms, regrets and even improvements, the directors of the Railway Company gave notice of their intention to apply to the Board of Trade for authority to abandon the Acts authorising the construction of several lines of railway, including the Potteries Loop Line.

The Burslem people appealed to the Board of Trade, asking them not to grant the application of the directors and, on May 6th, 1868, a letter was received by them from the Board of Trade, stating that they had declined to grant a warrant in the cases of the Tunstall Line (two miles and fourteen chains), of the Potteries Loop Line (six miles and nine chains) and of the Burslem Line (one mile, twenty-eight chains), the abandonment of which was desired by the North Staffordshire Railway Company. This resulted in the directors applying for more time to construct these lines.

It would appear that they were trying to gain time to their advantage, for November, 1869, saw renewed opposition from the Burslem Board of Health. Tunstall joined in the battle and they, too, in November, 1869, convened a public meeting in the Town Hall, 'For the purpose of taking into consideration the proposed application to Parliament by the North Staffordshire Railway Company, for powers to abandon the 'Tunstall Line Act, 1864; the Burslem Branch (new works) Act, 1864 and the Potteries Loop Line Act, 1865.' As Burslem was nearing 'Incorporation of the Town,' it was pointed out that they would soon have the expense of maintaining the turnpike roads, thrown upon the rates of the towns. It was the intention of the legislature to do away with the present turnpike trusts and to place the roads in the care of the townships, through which they were made.

The railway of the Loop Line, which would carry much traffic, would ease the repair burden on the roads. At an extraordinary meeting of shareholders of the North Staffordshire Railway Company, held at the Terminus Hotel, Cannon Street, London, on Wednesday, November 10th, 1869, the chairman pointed out that the estimated cost of the two mile Tunstall branch of the line was thirty thousand pounds and was, he said, purely a mineral line, as well as that of the Burslem branch. The Loop Line, he said, was both for minerals and passengers and would cost about two hundred thousand pounds. He claimed that the railway would not greatly benefit the district for, he said, 'Between Hanley and Burslem is a tramway, upon which an omnibus runs several times a day, carrying an average of seventeen

passengers. Between Burslem and Tunstall, there is a horse omnibus and the two omnibuses are barely able to maintain themselves.' Mr. Challinor said that they had to consider what chance the company had of being relieved by Parliament from their liabilities and engagements. The Loop Line Act imposed a penalty of fifty pounds for every day the line remained unopened after the allotted time, which was until July, 1872, unless circumstances beyond the control of the company prevented it. In particular, it was stated that, 'Want of sufficient funds was not to be regarded as such a circumstance.' Despite arguments at this meeting, a resolution was carried for the application for abandonment to go forward. The Bill came before a committee of the House of Commons on Wednesday, March 23rd, 1870. It seemed likely, from the beginning of the case that the Railway Company would lose and this was a decision which was announced by the Chairman, Mr. Hardcastle, at the close of the proceedings.

By mid-June, 1870, the directors of the North Staffordshire Railway were actively engaged in completing arrangements for the start of the long projected Loop Line and several contractors had been invited to send in tenders. The tenders of Messrs. John and William Pickering, of London, were accepted for the construction of the Potteries Loop Line and that of Mr. Mackay, of Silverdale, to make the Burslem branch line.

No material deviation took place in the route originally resolved upon. The line from Etruria continued in use with the railway passing under the top of Mill Street, Hanley, near the first station. The Town Council had successfully opposed a level crossing there. A new and larger station was to be built. It was stated that the remaining stations would be built at the following places:— Near to the late Miss Adams' Lodge (one of the lodges of Cobridge Hall and was situated by the railway bridge at Vale Place, Hanley, and opposite to what is now the disused Waterloo Road Station). The station was described as between the Hope Street toll gate and the level crossing of Earl Granville's railway. A station was to be at the eastern end of Cobridge for the convenience of that place and Sneyd Green. Other stations were to be at Burslem (Moorland Road), at Tunstall, near Mr. Malpas' Mill, and possibly at Newchapel. The Pittshill station was not mentioned at this period.

On Thursday, July 21st, 1870, the ceremony of the cutting of the first sod took place in a very unostentatious manner at Burslem. The contractor, Mr. Pickering, accompanied by Mr. Forsyth, resident engineer, and other officials, arrived on the ground which was in Moorland Road, on the site selected for the station. At three o'clock, the party was met by Mr. John Watkin, the Chief Bailiff, and other members of the Board of Health. On the invitation of the contractor, the Chief Bailiff cut the first sod and deposited it in a wheelbarrow and to quote from a contemporary newspaper, surely unintentionally humorous, 'and sundry other sods followed.' With the barrow fully charged, the Chief Bailiff steered it along a plank and discharged the contents in a workmanlike manner, amid the cheers of the assembled spectators. The party then adjourned to the Leopard Hotel, in Burslem, where, by the liberality of the contractor and the Chief Bailiff, 'Success to the Potteries Loop Line was heartily drunk, in sparkling bumpers.' The contractor said that whilst there were only six miles of rails to be laid, there would be more excavation and work than

in a projected line of railway of fifty-two miles in length, which he had looked over during the month.

In the middle of July, 1870, work on the construction of the Loop Line was being vigorously pushed forward and that portion of the line between Pittshill and Newchapel, comprising the summit portion of the line between Hanley and Kidsgrove, having been constructed so far with the help of horse traction on the line, it became necessary to substitute steam locomotion. This portion of the line was in the immediate vicinity of Turnhurst Hall and it was here, on November 14th, 1870, that a powerful new locomotive, named 'The Summit,' was placed on the line, driven by Mr. J. S. Runnells, the American Consul, who had been specially invited for the occasion. It was watched by Burslem and Tunstall authorities and friends as it steamed away with its first waggon loads of earth, at eleven a.m. It was the first train on the Loop Line carrying with it 'special passengers' on the engine itself. That evening, there were further celebrations when the contractors entertained the Chief Bailiffs of Tunstall and Burslem and their friends at the Sneyd Arms Hotel, Tunstall.

In March, 1871, Mr. R. Hales, the Burslem surveyor, presented a report with regard to the railway accommodation. He reported that the Burslem branch, being constructed by Mr. Mackay, of Silverdale, was 'in active progress,' but he was 'unaware of any steps being yet taken with regard to the construction of the Tunstall branch, a line of very great importance.'

In July, 1873, improvements began on the Hanley to Etruria line, which included widening from the point where the Loop Line struck out from Hanley station. This was not included in the Loop Line contract. In addition, a double line was laid and the curves of the old spur line reduced. On Thursday, October 23rd, of the same year, 'Government officials set out from Stoke, at 10 a.m., with the North Staffordshire Railway officials and inspected the Loop Line, as far as it had progressed.'

On Saturday, November 1st, 1873, the new railway station at Hanley (which we know to-day) was opened. It was built on ground known as the Buttercup Meadow, a most pleasant spot, in which was a large pool. Some years later, cottages on the fringe of this meadow, were demolished and the Grand Hotel built. The opening ceremony was not marked by any formality and the passengers were relieved from much of the inconvenience which had to be borne at the old station. When opened, the new station had no booking office or waiting rooms in operation and tickets were purchased by the crowd of people at the old station, passengers having to cross the road. Each train was cheered on arrival and departure by a crowd of Potteries folk.

Early in December, 1873, the Sentinel, under the heading of 'The Official Opening of the Loop Line to Burslem,' reported, 'considerable interest was manifest yesterday Monday, December 1st, 1873, in the opening of the Loop Line to the town. A goodly number went by the first morning train, returning by the next, expressing their satisfaction at having a ride by the first train. The town flag was hoisted on the covered market and the American Stars and Stripes were exhibited by a Yankee tradesman, in Mill Street, near the station. . . . In the afternoon, a large number of spectators assembled on the bank, near the station and seemed to regard the arrival and departure of trains with quite as much interest as the dog racing and rabbit coursing games in the field close by.'

1. Left, Brick Kiln Lane, widened for the Electric Trams in 1899, and right, Shelton New Road, 1956. The triangle of ground is mentioned in connection with trams in Chapter 3. It was laid out with turf in January, 1960.
2. Old tram shed opposite Providence Methodist Church, Upper Hanley, photographed prior to demolition in 1956.
3. Last electric tram to run on the Tunstall-Burslem-Newcastle route photographed at Porthill. The driver was Mr. W. Kendrick.
4. Removing old tram lines in Hope Street, Hanley, September, 1955.

On the same day, the railway station at Tunstall was also opened to the public. In October, 1874, the line was in operation to Goldenhill and, by 1875, the whole of the Loop Line to Kidsgrove was completed and opened. 'There was a great stir in consequence of the opening of this line, so much so, indeed, that it was observed to be very much like the Wakes. Many of the pits were idle. The first two trains were very crowded, while still greater numbers surrounded the entrance to the station. Up to 4.15 p.m., no less than four hundred and forty-eight persons had taken tickets, one hundred and forty-one to Burslem; one hundred and four to Hanley and, up to the same time, two hundred and eighty-four had been brought into the station by the Loop Line trains.'

Despite the enthusiasm of members of the public at the opening of the various stations on the Loop Line, people were quick to criticise, for punctuality was not a feature of the early trains on the line and was a cause of much irritation resulting in some correspondence to the Sentinel.

The state of affairs seemed to be summed up by Elijah Travis, of 17, Derby Street, Hanley, who wrote to the Sentinel complaining of, 'The bad arrangements at Burslem Station. . . . On Sunday night last, I went there at twenty minutes to ten, intending to come to Hanley by the nine-fifty train, but the train did not leave till seventeen minutes to eleven. During all that time, there were from forty to fifty people walking about in the damp and cold, although there was a room with a good fire, which I think is used as a parcels office and which might have served for the people to shelter in, but the servants of the company locked the door.'

Another Burslem resident complained, 'On Tuesday evening, I was desirous to return to Burslem by the train timed to leave Stoke at 7-45. There was a train to take us, but there was no one about to see to the departure of the train. Two guards were on the platform, but neither seemed to know what was to be done, for one asked me if the train in the siding was the Hanley train. Two engine drivers seemed to be in dispute as to who should take the Hanley train. At eight o'clock, a quarter of an hour late, the head porter came across the line and asked what they were waiting for, when the answer of the guard was, 'For orders.' He received the reply, 'Go on then.' Punctuality improved with the passing of time and in the years around 1900, such a complaint could not have been made about a well known railway guard on the Loop Line, nick-named 'Werriting Jack,' whose constant aim was to get his train off to time. At each station, he would fidget, first with his watch, then with his whistle and then with his flag and impatiently paced the platform, until he received the signal to go. He certainly spared no effort to ensure the punctual running of the old Loop Line trains.

Further complaints from Tunstall gave a glimpse of the state of some of the roads at this period, for, in December, 1873, one Tunstall inhabitant, commenting on the state of the road from the Town Hall to the station, said, 'Surely the road, a private one, could be levelled and a few boiler ashes put down until it is properly repaired. We, with Winter on us, must stumble over dirt heaps and, in the dark, splash ourselves in puddles. A lamp or two in the same direction would be of use, but this would be asking too much."

These are but a few expressions of public dissatisfaction by people of the Potteries,

whose protests increased in volume to such an extent that one feels that it is not out of place to quote some 'Hints to Railway Travellers,' published in the North Staffordshire Mercury Newspaper, some thirty years earlier, in 1840, when such irritations and accidents were experienced on the main lines :—

1. Should Prince Albert be coming or going, pray that His Royal Highness be punctual.
2. Never travel by 'night.'
3. If you hold shares, sell them.
4. Never smoke, never sleep.
5. Never go by the first morning train.
6. Never pay the servants of the establishment; do not fail to complain of incivility or insult.
7. Occupy the centre seat in the centre division of the centre carriage of the train —if the carriage is upset, you are not so liable to be cut by the glass and it is not quite certain you will be literally 'smashed to pieces' (the expression used in describing a late accident).

Accidents did take place, some with disastrous results for the North Staffordshire Railway Company and others of a less serious nature.

One of the early fatalities occurred near to Longport, on the main line, when two boys, aged fifteen and sixteen, were killed. The inquest was held at the Pack Horse Inn, Longport, during the winter of 1854. The accident had occurred at a level crossing, at the foot of 'The Lunts' (a field road leading from Burslem to Wolstanton), at 5-30 p.m. and as it was dark and a high wind blowing, the boys had not heard the approach of the train over the crossing. As some eight hundred people were using this crossing daily, it was decided to construct a tunnel under the line near to the crossing and this was opened in May, 1855.

Accidents at Lord Granville's crossing, at Cobridge, a mineral line for the use of his colliery, were not infrequent. This was an open crossing until December, 1853, when a signal post was fixed with a man to attend it, together with a promise to, 'erect gates as soon as possible.' Despite gates, fatalities sometimes occurred, as was the case in October, 1860. The accident resulted in the death and terrible mutilation of an eleven year old boy. The gate keeper claimed that he had a pole as a fence on the left hand side of the road, which only partially crossed the turnpike road, and, from the point of the pole to the footpath, there was sufficient room for a cart to pass. The boy, who had been returning from work, was cut to pieces. At this time, there was no gate on the level crossing, in Cobridge Road, near to the Rose and Crown Inn and by the side of the Furnace Inn. The accident resulted in a measure of protection being placed there also.

Accidents occurred at the railway crossing on the Leek Road, near to Stoke Station, which was not, at that period, carried over a bridge, but had double protective gates, also attended by a gate keeper. The tragedy occurred late at night, in May, 1861, when a woman, a mother of six children, witnessed the accident to her husband, who lived long enough to exclaim, 'I have no one to blame but myself.' The man died the next day at the Infirmary, but not in vain, for it was recommended that the turnstiles be locked when trains passed and a footpath be made under the line.

The directors agreed to lock the gates and turnstiles when trains were passing, but it was not until July, 1866, that plans were put forward for a tunnel to be cut under the railway, from the canal bridge, in Church Street, Stoke, to the Leek Road, on the opposite side of the railway. This finally resulted in the bridge we now know. Similar crossings, with gates, were to be found at Cliff Vale, where we now find the present Newcastle Road railway bridge, the road having been made to slope on either side of the bridge. Here, in April, 1871, a goods train from Crewe to Stoke crashed into the gates, which were closed across the line, the gate keeper being absent at the time. It must be stated that many fatal accidents resulted from people trespassing on the lines.

In November, 1865, notice was given of a proposed Parliamentary Bill to construct the Longton, Adderley Green and Bucknall Railway, which was opened in 1875. The Parliamentary Acts catered for a railway system, which would include Fenton Vivian and Fenton Culvert.

At Longton, the great iron bridge, spanning the main road, was completed in 1889. Stations were also proposed in 1891 and 1892, for Hartshill and Basford. These stations did not materialise, despite the Stoke Corporation pointing out that a new road, Victoria Road, connecting Hartshill to Basford, was to be made and asking that a new station in the Newcastle branch of the railway should be constructed. At Stoke a small lake was excavated beside the North Stafford Hotel, which, in those days, was more than an ornamental sheet of water, as it provided a water supply for the boilers of the railway engines. The lake was fed via the canal (from Rudyard Lake), which had been made in 1793, for the purpose of supplying the Trent and Mersey Canal, when a dam was built across the valley to conserve the overflow water of the River Dane, which runs in at the north end of the lake.

In the year, 1893, electric light was installed at Stoke Station and in April, 1898, an important experiment took place at Stoke, which was to make obsolete the use of oil lamps in railway carriages on the North Staffordshire Railways. This progressive experiment took the form of a trial trip by a passenger train equipped with electric light, from Stoke to Congleton, returning via Harecastle. The train consisted of eight newly painted and refitted carriages with guard's vans. The electrical system used consisted of a generator being placed under each guard's van and as long as the train travelled at ten or more miles per hour, a current of electricity was produced which was stored in accumulators housed in each guard's van. The lights supplied in the carriages were of eight candle power, the first and second class compartments having two bulbs and the third class one light. It was said that no difficulty was experienced in reading a newspaper in a corner seat. A switch in the guard's van controlled all the lights. It was also considered that, after the initial cost of installation. the cost of maintenance would be trifling compared with the existing system of lighting the railway carriages by oil. The travelling of the train was sufficient to generate the electricity and the extra strain upon the engine was estimated as not being more than that produced by a further one a quarter pound of coal per carriage lighted. During the evening of the experimental run, the electric lights were found to have increased their brilliancy. The light held steady when the train travelled on level rails and when the batteries were well charged, but the quality of the light

varied when the speed of the train, which governed the speed of the dynamos, was greatly reduced. This was especially noticeable on the Loop Line, where frequent gradients slowed down the speed of the train drastically. Perhaps this was one reason why oil lamps were to be found in some carriages for a decade after the introduction of electric light.

In 1905, the new station at Fenton was opened and on Monday, March 28th, 1910, the line between Trentham and Trentham Park (approximately one mile) was opened. From here it was intended to extend the line to Newcastle and on September 19th, 1914, the huge iron bridge, weighing one hundred and fifty-four tons (which until recent years spanned the main road, just before the road from Stoke branches to the Dairyfields Estate at Trentham) was literally rolled into place. Wood sleepers and railway lines were laid across the road and the end of the bridge, which projected over one of the two supporting walls, was placed on huge wooden struts terminating on a trolley, which ran on the rails placed on the road. A trolley was placed under the other end of the bridge which rested on the Trentham Park Station railway line and the whole bridge was run easily on to its resting place on the adjacent supporting wall.

The 1914-1918 War prevented the completion of this line which never progressed beyond the bridge and curiously the bridge was taken down for scrap iron during the Second World War.

In December, 1922, agreement was reached in which the North Staffordshire Railway became part of a new group of railways known as the London, Midland and Scottish Railway Company, in accordance with the Railways Act, of 1921. The deputy chairman of the North Staffordshire Railway, Major Frank H. Wedgwood, was elected to the Board of the new group, which came formally into existence in January, 1923, and, on February 27th of the same year, the last annual meeting of the North Staffordshire Railway Company was held with Lord Anslow in the chair. The North Staffordshire Railway Company, from the time the first section of the line from Stoke to Norton Bridge was opened for traffic on April 17th, 1848, had had a long and progressive history.

The way, in which the system has grown, will be seen from the following list of sections, given in the order of opening from 1849 onwards :— Stone to Colwich; Congleton to Macclesfield; North Rode to Uttoxeter; Marson Junction to Willington; Lawton Junction to Sandbach; Rocester to Ashbourne; Newcastle Junction to Knutton Junction, with Pool Dam Line; Apedale branch; Biddulph branch (Stoke Junction to Brunswick Wharf and Congleton Lower Junction to Congleton Upper Junction); Pool Dam to Junction with Messrs. Stanier's works, Silverdale; Etruria to Hanley; Talk-o'-th'-Hill branch; Chesterton branch; Leek branch; Burton (Horninglow), Hawkin's-lane Junction to Stretton Junction; Silverdale to Market Drayton; Audley line; Bignall Hill branch; Jamage line; Grange branch; Hanley Junction to Burslem; Burslem to Tunstall; Tunstall to Goldenhill; Goldenhill to Kidsgrove Junction; Newfields branch; Tunstall branch; Longton, Adderley Green and Bucknall line; Uttoxeter curve; Cresswell to Tean; Tean to Cheadle; Leekbrook to Ipstones; Ipstones to Waterhouses; Cauldon Junction to Cauldon; Leek and Manifold Valley Light Railway; Leek curve; Trentham line.

The total length of the line belonging to the North Staffordshire Railway Company was two hundred and fifteen miles.

The future of the railways in the six towns and the outlying districts of the Potteries is a matter of much conjecture. Recently, a well known weekly magazine claimed that, 'Steam trains are on their way out; no more will be built. Electric and diesel will take their place.'

Some lines have already become redundant and the famous Potteries Loop Line, in its heyday a flourishing concern, could well become a line carrying the ghosts of the past.

In June, 1956, the 'Sentinel' reported that the maximum number of passengers seen, during a check one week of that month, to travel in the 10.44 Loop Line train from Stoke was four—and three of them were railway men travelling free! Mr. H. Chadwick, a railway clerk, who made the check, said that 'the public were apathetic towards the railway service already provided and that people will stand about in pouring rain and sleet at a bus stop, but that they complain if there is no fire in a station waiting room.'

In August, 1956, drastic reductions in the number of trains, on the Loop Line between Stoke and Kidsgrove, were announced. There were to be nine fewer trains on Mondays to Fridays and twelve fewer on Saturdays. The new service came into operation on September 17th, 1956. (This was on a line which, at its best in the early part of the twentieth century, carried over seventy trains a day, with one every twenty minutes on Saturdays and a rush hour steam rail car on a shuttle service between Newchapel and Etruria). Requests for diesel engines to run on the line were turned down. The entire blame was placed on the community, who failed to support the railway. By 1957, only sixteen trains a day were stopping at Burslem, the Mother Town of the Potteries.

August, 1957, brought news that may well mean a new lease of life for the Loop Line. Diesel operated trains are the new order of the day, which will extend to the Loop Line as more units become available. The huge diesel engine repair sheds, erected this year on ground between the Newcastle Road railway bridge and the railway embankment at Cliff Vale, will house the new trains. These sheds, completed by December, 1957, cover almost the whole of this ground, which until a year ago, had been a triangular, swampy field, over which, in the quietness of an early spring morning, the lark might be seen and its ethereal little song heard—a rare visitor to the city, reminding one of the distant past, when much of 'Stoke' was a swamp.

On Thursday, September 12th, 1957, the Lord Mayor of Stoke-on-Trent, the Reverend Arthur Perry, together with other civic leaders, were among the passengers on the Crewe—Derby diesel train on its inaugural run, joining it at Stoke station. On Monday, September 16th, a regular diesel train service started on the loop line. Nine steam trains were replaced by diesel railcars, but other services on the loop will remain 'steam-hauled' until the scheme is fully operative. On Thursday, September 19th, the first diesel train accident occurred by Longport level crossing, when Mr. James Allen, of Stoke, a railway worker, was struck by a diesel express while walking by the line. He appeared not to hear the repeatedly sounded klaxon. He sustained multiple injuries from which he died. Mr. Allen was an experienced

and valued railway employee of the type the railway could 'ill afford to lose.'

Air Communications

Air communications to and from the Potteries began with a civic inauguration ceremony in 1935, and it was felt, at the time, that an important movement had been made for inter-communications by air travel. It was a hope that gradually faded until it is now almost forgotten.

'Stoke-on-Trent is now an air station on the main London-Belfast-Glasgow route,' announced the 'Sentinel' newspaper in 1935.

On August 12th, 1935, a former Lord Mayor of Stoke-on-Trent, Alderman Miss F. A. Farmer, who was a member of the City Aerodrome Committee, accompanied by the Town Clerk (Mr. Harry Taylor), were the first and only two passengers from this City to London, when the Railway Air Service aeroplane 'Mercury' landed at the City aerodrome at Meir on its journey from Glasgow.

This inauguration ceremony meant that aeroplanes would call any day on request at the Meir Airfield, at 11-50 a.m. for Birmingham and London, and at 4-20 p.m. for Manchester, Liverpool, Blackpool, Isle of Man, Belfast and Glasgow.

The journey from Stoke to Croydon, a distance of approximately one hundred and fifty miles, took one hour and fifteen minutes. To Glasgow it took three hours and five minutes, whilst Birmingham and Manchester were reached in about twenty minutes. The planes which touched down at the Meir in this service were De Havilland four-engined aircraft named Mercury and Jupiter, each holding ten passengers. The service was continued until 1937, when the Royal Air Force School came into operation. The aerodrome was a big expense to the City for a long period, but in 1937 Air Ministry officials suggested that a Royal Air Force Flying School should be housed at the City Aerodrome. The City Council decided that it should be let for this purpose on a twelve year lease at a rent of £850 per annum. It was proposed by the Ministry to establish a 'Type B' Royal Air Force Volunteer Reserve School for one hundred recruits. The Ministry proposed to build two hangars, each one hundred and eighty feet long by ninety feet wide, complete with messrooms and sleeping accommodation. There were to be twenty-five aeroplanes.

For a period the Flying Club was very active at Meir Aerodrome. During the Second World War a very large aircraft factory was built adjoining the Airport, and the air-field was used in flying aircraft to and from the factory, these specially made aircraft being suitable for the North African Campaigns.

Since the war extensive training of glider pilots, in connection with the Air Training Corps, has taken place. In addition aircraft used by the Staffordshire Potteries Limited make frequent use of the air-field. The company's works, offices and stores are on the perimeter of the air-field.

For a period the Corporation installed agricultural machinery and very large quantities of grass were cultivated and turned into grass meal.

In February 1955, the City Corporation granted permission to Dragon Airways Ltd., of Liverpool, to operate air services for a trial period of one year. In June 1955, the Ministry of Transport and Civil Aviation, after considering recommendations of the Air Transport Advisory Council, approved the operation of an internal

air service, between Meir Airport and the Isle-of-Man, by the Dragon Airways Ltd. until the end of October 1961, but the poor condition of the runway resulted in the curtailment of the service to North Staffordshire holiday-makers within less than a year of its being granted. Many people were of the opinion that houses should be built on the site, but although the future of the air-field is somewhat uncertain one feels that members of the City Council are wise in preserving this large open space for future use for air communications.

Postal Service in the Potteries

In 1740, letters were brought to Burslem the Mother Town of the Potteries 'every Sunday by an old woman.' By 1760, letters were being delivered in the town three or four times a week by a postman on horse back sounding his horn as he approached.

The coming of the Industrial Revolution brought with it a great want for a better posting system.

In the Potteries, the rapidly increasing pottery industry made manufacturers realize that some regular method of sending and receiving letters was an urgent matter, to be discussed and settled.

Previous to the early nineteenth century, posting meant the employment of horses for travel—hence the terms Post Horse, Post Chaise and Posting Inns. The posts, set up in various towns, were places of call and were under Royal direction. These 'Post' houses, or places of call, usually had a horn hanging or affixed as a sign. Such a horn could be seen on a house in the main street in Stone until quite recently, although one cannot vouch for its originality. It is interesting to note that Stone and Lichfield were the only post towns mentioned in Staffordshire in the late sixteenth century.

The history of Posting and the Mail Coach makes lengthy reading, but for purely local reference we must turn to the eighteenth and nineteenth centuries. Just previous to the beginning of the eighteenth century, 'post offices' were to be found as near as Stafford and Stone and in the eighteenth century at Newcastle-under-Lyme, Stafford, Stone, Uttoxeter and Leek. 'Post Boys' who delivered mail on foot and horseback were used in conjunction with the stage coach which speeded up delivery to a considerable extent. From a local point of view it will be seen that Newcastle was the important centre for posting and that the Potteries was completely neglected. The use of stage coaches led also to a rapid improvement in the state of the roads and it is possible that the poor condition of the roads in the Potteries was largely the reason that Stoke-upon-Trent had no post office as late as the early nineteenth century. Mail coaches could have run, but they did not run where the state of the roads was not considered good enough for a mail coach. Newcastle and Stone were the nearest posting points in the General Post Office system. At last prominent manufacturers in the district became alive to the fact that the ever increasing importance of the towns of the Potteries was being seriously hampered by the lack of postal facilities and in September, 1814, a meeting was called, addressed to the 'Gentry, Manufacturers and other Inhabitants of the Staffordshire Potteries and Their Vicinity.'

The meeting was held at the Swan Inn, Hanley, on Wednesday, 12th of October,

1814, at eleven o'clock, for the 'Purpose of taking into consideration the propriety of Petitioning His Majesty's Postmaster General to afford us a more safe and expeditious mode of forwarding our Letters, by granting us a Mail Coach through the Potteries.'

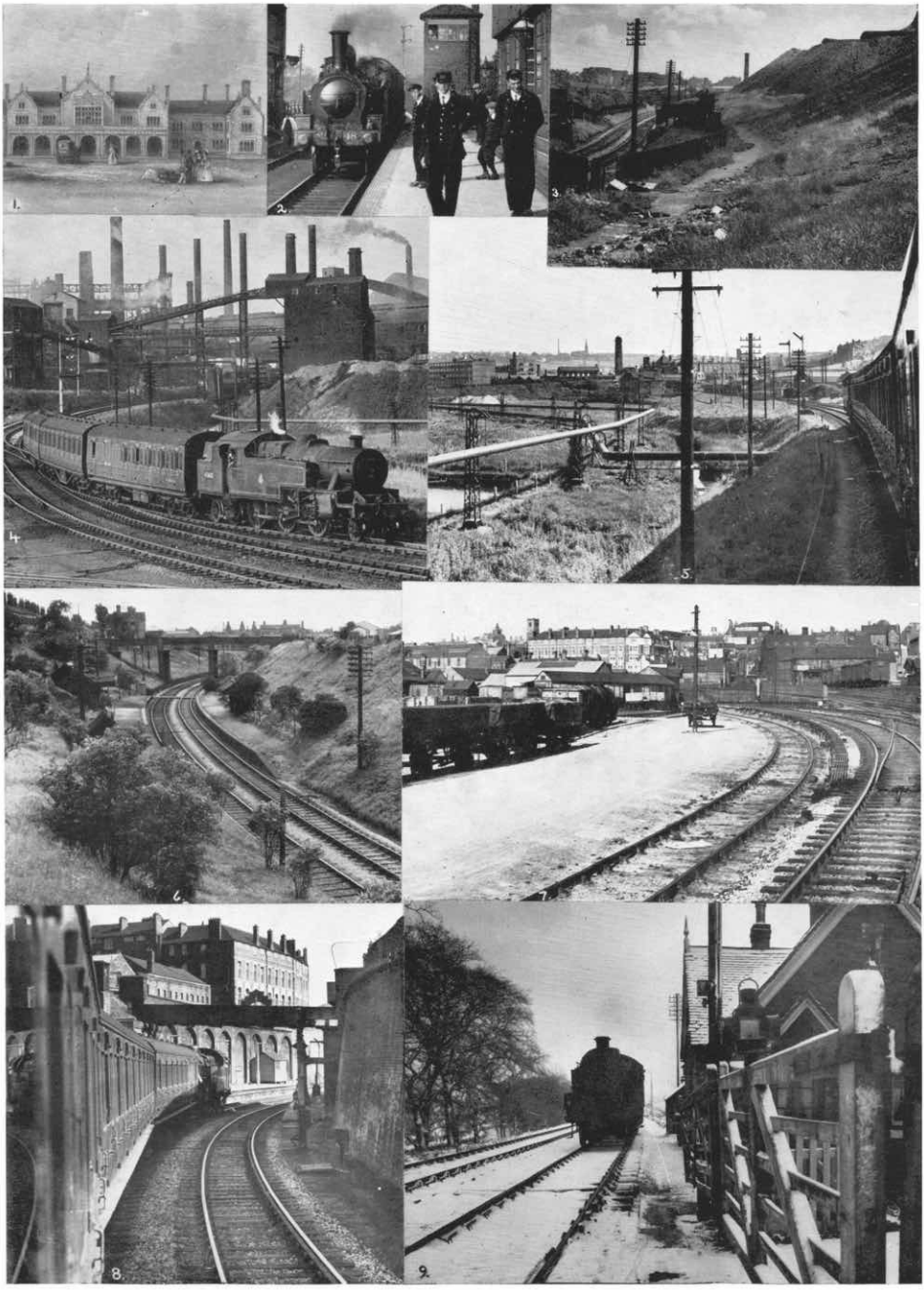
The notice of the meeting was signed by such wellknown names as John E. Heathcote, I. H. Sheridan, Josiah Wedgwood, Charles Bourne, Robert Hamilton, John Ridgway, A. Meigh, Ralph Stevenson, T. & R. Hollins, B. Warburton, Enoch Wood, F. Pratt and others, and was dated, Lane End, September 29th, 1814.

Coaches were passing through the Potteries—but no Royal Mail Coaches—and letters carried by ordinary coach were neither safe nor delivered promptly ; and whilst robbery and hold-up of coaches travelling to the Potteries was fairly frequent, especially at night, the highwayman very rarely attacked the Royal Mail Coach, whose guards, men of courage, were heavily armed.

The sentiments expressed at the meeting were backed up by a 'Freeholder,' who wrote a long letter to the public, in which he declared, 'Our letters are seldom delivered till near nine o'clock, even at the office, and those who wait for them to be delivered at their residences are often without them till ten or eleven o'clock in the ensuing forenoon, at which time the lower classes are chiefly employed from home ; still we are expected to pay twopence each letter for the delivery.' (A goodly sum in those days). 'Here it has been said by persons supposed to be well aquainted with the subject, hence considered as competent judges, that instead of paying twopence each letter, it should only be twopence each delivery, there being only one trouble. Of these, however, I am not prepared to say which is correct. And, if any person in Hanley wishes to pay the postage of a letter, he uniformly pays one penny more than if he were to take it to the Shelton receiving house. Of this, I speak from personal experience having several times been thus served. Why are our pockets thus constantly to suffer? Are we without claim to what is considered a general convenience? Have not the Staffordshire Potteries, a district of twelve miles, and containing sixty thousand inhabitants, equal claim with Newcastle, Stone and others, for a regular Mail? Why are we to pay extra for that convenience? Which is so liberally afforded to the above places, which have two Mails through them? Countrymen, let us boldly show to all that we are Britons; that we are sensible of having a common right to common convenience; and let us respectfully, yet confidently, represent our inconveniences to the Honourable His Majesty's Post-Master-General, and claim the redress we so fully need; and which may be now so easily conferred by constituting the Coach now regularly passing, a Royal Mail Coach!'

Improvements were duly made, but the habit of 'fetching and meeting the post' existed for a long period and as late as 1841 young people working at Davenports, Burslem, would go out to meet the postman on his steed, bringing a few bags of letters from Newcastle where there was a central office.

The keeping of the early post offices in the district was usually a joint business and in Tunstall in 1830 one found that Benjamin Griffiths, a watch and clock maker in the Market Place, was postmaster too. After this, Samuel Adams, newsagent, Registrar and Church Clerk, took over the duties. About 1858, it was in the hands of a Mr. Llewellyn, again in the Market Place, before it was moved to John Street.



For information see overleaf

1. Stoke Station, *circa* 1848. The original Stoke Station was at Whieldon Grove.

2. Blythe Bridge Station, *circa* 1900. A typical North Staffordshire Railway Station which, in common with others, became part of the London Midland & Scottish Railway in 1923.

3. Loop Line and the Tinkersclough slag mounds, 1957.

4. Loop Line train about to enter Etruria Station, 1953.

4. As No. 4, but showing Basford Bank and Hartshill Church in the background, 1957.

6. Fenton Manor Station, shortly before closure in May, 1956.

7. Loop Line entering Hanley Station and goods yard, 1957.

8. Train entering Hanley Station from the north. The Grand Hotel is in the rear of this picture taken in 1957.

9. Country-like crossing at the foot of Birches Head Lane, Stoke-Leek line. Opened in 1867, the line was closed to passenger traffic in 1956. Stockton Brook and Wall Grange Stations were closed, but Bucknall, Milton and Endon Stations remain open for goods traffic. Winter conditions, as the illustration shows, would not add to the comfort of the traveller. Early carriages on the North Staffordshire Railway were heated by mobile hot water bottles. Heating by steam from the engine did not take place until after 1900.

In the eighteen seventies the post office returned to the Market Place and finally to the present premises in the High Street. Here in Tunstall, until about 1860, the mail was taken by horse and trap, or on horse back, to Newcastle, there to connect with the Royal Mail and after this date to the Station Post Office at Stoke.

In June, 1845, a delivery of the London day mail was granted, the measure being effected by a detention of the Liverpool, and other letters, at Whitmore Station, until the arrival of the down London day mail. The correspondence had been sufficient to justify the expense of a third mail cart conveyance from Whitmore to the whole of the Pottery towns. The mail bags were conveyed by horse-gig to the various towns of the Potteries region, thus serving a population of one hundred and fifty thousand. There was a danger of occasional robbery on dark nights on the lonely road from Whitmore.

In 1852, the Staffordshire Pottery towns had two deliveries of letters daily; the first in the morning after the arrival of the London night mail, and the second after the arrival of the Liverpool, Manchester and Birmingham local post in the afternoon. It was felt that the new North Staffordshire Railway could be used instead of the mail carts from Whitmore, especially as the line passed through the district. It was said they durst not treat Manchester and Liverpool as they had treated the Potteries, and it would be a great convenience to the Potteries to have a day mail from London.

It was not, however, until March 28th, 1854, that daily mails ran through the Staffordshire Potteries, and in January of that year the head post office of the district was transferred from Newcastle to the railway station at Stoke-upon-Trent, where a convenient room, with a private office, adjoining the booking office for the down line, was fitted out for the purpose of a post office. Mr. and Mrs. Charles Cooper removed with it from Newcastle, and Miss Wigley, the Stoke postmistress, took over at Newcastle. The day mail from London was brought to Stoke by the North Staffordshire Railway, but the night mails were still carried for a short period to and from Whitmore station, with the exception that the bags were made up at, and despatched from, Stoke instead of Newcastle.

There were mail carts from the new Central Office at Stoke to Longton, and another to Hanley, Burslem, Tunstall and Lawton. No letters were delivered directly from the Stoke Office. Four years later, in 1858, pillar letter-boxes, began to appear in the Potteries. In Stoke, during December, one was erected in the High Street, near Mr. Dean's stationery shop, and a second at the Villas. During the same month in Hanley, boxes were placed at the top of Russell Street, and at the lower end of Lichfield Street, in Joiners Square. In 1862, Longton applied for additional pillar boxes.

An interesting illustration of cricitism about this period is recorded in 1860, when Councillor Huston directed attention to the clearing of the pillar letter-box at the bottom of Lichfield Street, Hanley, observing that it had lately been cleared but once a day. It was pointed out by the Town Clerk that the Postmaster had said, 'Only six letters, one week, were put into the box for the morning mail, and to collect those six letters a man had to travel eighteen miles.' A further example of postal perplexities was recorded by Mr. E. Allbut when Chief Bailiff of Hanley said not so very long ago, about 1856, a gentleman complained to the postal authorities at

the General Post Office of a letter being delayed between Cobridge and Hanley. The answer he obtained was, 'that the Government saw no necessity for interfering with a village delivery.' Thus, said Mr. Allbut, we are regarded by the authorities as a village!

Early post offices took the form of the buildings they occupied. A room, however unsuitable, often had to suffice. Such was the case of the early post office in Hanley. This, however, was much improved and in October, 1864, alterations to the Hanley Post Office, kept by Mrs. Mary Appleby, in Fountain Square, were made at the joint expense of the Town Council and the postmistress. 'The narrow and inconvenient passage in which the extensive postal business of the town has, up to the present time, been transacted, with its foot-square pigeon hole and shoelace bell-pull, is to be superseded by a commodious open office, with a counter and lobby. A plate glass window is also being put in, and other minor matters in the office are being very much improved.' One year later, in June 1865, the new and handsome post office at Stoke railway station was opened. The old office, although possessing some advantages, was found to be in its size and arrangements quite inadequate to the requirements of the large postal business of the general office for the district. The new offices, of an unpretentious character, were in keeping with the railway buildings. The opening of the office, brought with it the closure of the post office in Glebe Street, Stoke, and the opening of a receiving office in the High Street. From this new main post office at Stoke, delivery by letter carriers, and to callers, began at seven a.m. Letters could be posted with an ordinary postage stamp to Newcastle (Staffordshire) until 1-30 a.m., with an extra one penny stamp until 1-45 a.m., and at varying times for various destinations. For London, all England, Scotland and Ireland letters could be posted at 10-30 p.m. (with an extra penny stamp until 10-45 p.m.).

At this period, the Parliamentary Borough of Stoke-on-Trent, comprising Stoke, Penkhull, Burslem, Fenton, Hanley and Shelton, Longton and Tunstall, contained approximately 101,200 inhabitants and 3,000 electors.

Stoke itself contained, according to the census return of 1861, 10,818 people who lived in 2,260 houses, 132 of which were unoccupied. Stoke had two pillar-boxes. In addition there was a box near to the church at Hartshill, also one at Penkhull and one at Trent Vale. The only telegraph at this time (1865) was the Electric and International Telegraph Company at Stoke railway station.

In Hanley, Mrs. Appleby dealt with the postal requirements of a population of 31,952 (1861 census) which lived in 6,322 houses, 189 of which were uninhabited. This Municipal Borough included Hanley, most of Shelton, Etruria, Eastwood Vale and Northwood.

Fenton had a population of 7,882 people who lived in 1,629 houses, 56 of which were uninhabited. Here the people were catered for by a post office in the High Street. Fenton also had two pillar boxes.

Longton with a population of 16,690, living in 3,345 houses had postal facilities at 64, Market Street, Longton, and one pillar box in the High Street, from which letters were cleared at 10-20 a.m. and 8-30 p.m.

Burslem, which included Rushton Grange and Sneyd, with its population of 21,601, had 4,447 houses, 172 uninhabited, and was served by post offices at the Market

Place in Burslem (the site of which is now occupied by the inn, The Post Office Vaults) at Elder Road, Cobride, at Station Street, Longport, and with a pillar box opposite to 85, Waterloo Road.

Tunstall, having a population of 11,207 , and 2,204 houses, 118 of which were uninhabited, had a post office in John Street. There were in addition post offices at Pitts Hill and at Clarke Street, Newchapel.

In spite of these greatly improved postal facilities for the towns of the Parliamentary Borough of Stoke-upon-Trent, it is curious to note the reaction of people and authorities outside who were not aware of the importance of the towns, for Councillor Taylor, speaking at a Hanley Town Council meeting in March, 1868, gave some amusing illustrations of the ignorance of people at a distance, as to the existence of Hanley, mentioning amongst other matters that when an application was made, some time ago, for a second post office for the Borough, that the reply was 'It was not usual to have two post offices in a village!' Two years later, repeated requests for improved postal facilities for Hanley brought forth the fact that the Post Master General had issued an order that all letters posted at the Central Post Office, in Fountain Square, were to bear the post mark 'Hanley.' One feels, however, that 'facilities' were not so inferior and that after all, progress was a matter of comparison, for in May 1881, Councillor Robinson could not see why Hanley should have a mid-day delivery, and not Burslem. A letter sent by the morning post from Burslem was delivered in Hanley before one o'clock; but a letter posted in Hanley would be delivered in Burslem about four, or half past four in the afternoon. It was claimed that these arrangements gave businessmen in Hanley an advantage over those living in Burslem, of at least a day in getting their goods away.

On Monday, December 17th, 1883, a new branch post office was opened in the newly erected premises in Percy Street, Hanley, by Her Majesty's Commissioners of Works. Plainly constructed, it was considered to have, 'Every arrangement likely to conduce to the convenience and comfort of the public and officials.' Telegraphic apparatus was placed in the upper storey. This building was opened by the Mayor of Hanley, Mr. W. H. Ringland (whose name is perpetuated in Ringland Street), who posted the first letter addressed to the Post Master General. The Mayor, in opening the office said, 'There is a strange fitness in my being called upon to open a new post office for the Borough of Hanley. Many of you will remember that the late Mrs. Appleby was the postmistress of the town for many years and it was the niece of that lady whom I (the Mayor) just sixteen years ago this day, persuaded to accompany me to a chapel, where we were made one.' The Mayor, in posting a letter of thanks to the Post Master General, also expressed his satisfaction of the recently inaugurated parcel post service and also the hope that, 'Hanley, the metropolis of the Potteries, which is, and has always been, a sub-post office, may be promoted to a head office during your period of service.' It was not until 1906, that the post office buildings in Tontine Street, Hanley, were opened. Built on a piece of ground acquired from the Corporation of Hanley it was formerly used to a great extent by the once popular Batty's Circus.

The ground was known as Batty's Circus to the last, although it was leased by Charles and George Elphinstone.

It was during a period in which the circus was leased by the Salvation Army that some very remarkable faith healing services were held, which were the subject of much comment in medical circles throughout the country. Eventually the services were brought to an end, mainly through the criticisms in the press, and by an article by Mr. W. D. Spanton, a very well-known surgeon.

The attention of General Booth was called to these services. His comment was: 'Who is he that GOD is not performing miracles through the agency of a humble follower of the Salvation Army?'

Previous to these years, a very early Hanley pot works, had stood on the site and when the site was being excavated for the Post Office, Mr. Robert Hastings, a Hanley crockery dealer and amateur photographer found fragments of old comb and other ware, which were taken to the Hanley Museum.

The new Post Office, having frontage of 153 feet, was built of Hollington Stone in the Renaissance style. The main feature of the frontage is a central triangular pediment supported by Ionic columns and pilasters. The main entrance was placed in the centre of the front of the building which opens directly into the public office, which is a spacious and well built room, 43 feet long by 26½ feet wide. The building cost approximately £13,000 and was formally opened by the Post Master General, the Rt. Hon. Sydney C. Buxton, M.P., on Thursday, October 18th, 1906. The interior of the building was remodelled and the exterior exits altered in 1955, in which year the head office postal administration was transferred from Stoke to Hanley.

Indeed, 1900 to 1910 was a decade of fine new postal buildings for the towns of the Potteries, for in 1904 the new Post Office at Burslem was opened and the romance of the post office in the 'Mother Town' had reached an important point.

In the early eighteen thirties, the Legs of Man Inn, Burslem, was the post office, kept by two maiden ladies of the name of Cotton. This old Inn, demolished about twenty years ago, stood on the site now occupied by Burtons, the tailors, in Burslem Market Place. In 1836, the Misses Cotton, having in the meantime removed the office to various premises, established themselves in a small shop on the east side of St. John's Square. In the course of time, one of the Misses Cotton was appointed Matron of the North Staffordshire Infirmary, and a Mr. Wilson, a former chemist, took charge of the post office, which was removed to premises opposite the Conservative Club of that period. From this office Mr. Wilson would deliver the letters himself, sometimes assisted by an old woman named Johnson. On his death, Mr. Wilson's son took over the duties, followed in the course of time by a Mr. Derry, who took the business to premises in Moorland Road, then quite rural. Indeed, to such an extent that the removal provoked the writing of a rhyme:

'Hey, derry down, high derry down,
They've taken the post office out of the town,
And the greatest advantage this movement yields,
Is posting the letters one writes in the fields!'

The post office had one more transference before the opening in 1904 of the new post office which we know today.

On June 1st, 1909, the new post office in Longton was opened by the Mayor of Longton, Alderman Aaron Edwards, with a gold key bearing the Borough Arms of

Longton in rich coloured enamel. The door was opened and first letters despatched by the Mayor, who read the first telegram received at the office, which was from the Mayor of Newcastle, Mr. Sydney Myott, expressing his regret at inability to be present at the ceremony. Earlier in 1849 the post office in Longton was in Market Street, kept by a Mrs. Forrester. From here it was moved to Commercial Street, and here too a lady was in charge. At this period there was only one postmistress to make all deliveries in the town. Alteration and extensions have also been made to this office, but much of the frontage remains the same.

In September, 1923, machines for the automatic sale of postage stamps were erected outside post offices in the six towns, beginning with Stoke, from which one was able to purchase one penny or half-penny stamps. Today the postal service in the City of Stoke-on-Trent is more than ever a vital part of our communications. Efficient as the post service undoubtedly is, it may not be out of place to close this section of this chapter by relating a curious and million-to-one-chance which came to light in August, 1919, when a local firm sent to the 'Evening Sentinel' a business document which was despatched by them to another local firm in January, 1874, and which had just been returned to them by the Post Office Authorities, bearing a label, 'This enclosure has been found loose in the post office'—after having lain there for forty-five years!

Telephones

As elsewhere, the coming of the Electric Telegraph to the six Towns of the Potteries was to mean a revolutionary and fascinating method of communication.

Until about the year 1861 the only method of sending a 'wire' was from the North Staffordshire Railway Station.

The first indications of the likelihood of this wonderful invention being made available to the people of Stoke-upon-Trent was early in 1862 when the United Kingdom Electrical Telegraph Company Limited, after encountering very determined opposition from the older established concerns, suceeded in obtaining, in the late session of Parliament, an Act protecting its interests and giving facilities for the extension of its lines to all parts of the kingdom. The line had, in October of that year, been brought from Manchester to Hall Green, near Harecastle, a route that seemed to indicate that the directors anticipated connecting up the towns of the Potteries with the telephone. This was indeed their plan, for they proposed to carry the line through the Potteries, placing a telegraph office in the centre of each town, on condition that the public of the district took shares in the Company, to the extent of two thousand pounds. By the terms of the Act of Parliament the Company was compelled to send a message, not exceeding twenty words, for one shilling, over a maximum distance of one hundred miles, after which the Company was at liberty to charge two shillings for a message sent beyond that distance. These rates were less than the rival companies in other parts of England and, in addition, the directors had decided not to depart from the shilling charge, no matter what the distance of the call, so long as they were able to pay a dividend of five per cent per annum.

On November 1st, 1862, the Company was busily canvassing the towns for shareholders, with the blessings of the various town councils, who declared that, 'Cheap

telegraphy will be a great boon to this district.' By the 22nd of the same month, the Company was carrying its wires from Stoke to Hanley, and it was envisaged that within a month inhabitants of Hanley would be able to send telegrams without going down to the Stoke Office. The new telegraph office of the Company was installed at the Hanley Railway Station, and later removed to an office in Fountain Square.

The United Kingdom Electric Telegraph Company lost no time in connecting other towns, and by October, 1863, offices or 'stations' had been opened at Stoke, Hanley, Burslem, Longton and Tunstall, but Fenton, the sixth town, doomed it seems before Arnold Bennett immortalised it by leaving it out of his novels, was not to have its own office.

Indeed, the manager of the Telegraph Company, in a letter to the Mayor of Hanley, informed him that he had the pleasure to inform (the Mayor) 'We have opened our new line to your town (Hanley) and to the other principal towns of the Potteries district.' Fenton was not included in the list.

However, all was not quite so well as it might appear to the reader, for there were plenty of minor irritations which the company had to overcome.

One town Board of Health wrote, 'The introduction of the telegraph system into the district by the United Kingdom Telegraph Company has engaged the attention of your local board in avoiding, as far as possible, the disfigurement of the town by their poles and wires in the main streets.'

Owing to the unlimited powers of the early telegragh companies, owners of property were obliged to submit to having their property unnecessarily disfigured. The new Act of 1863 empowered the Board of Trade to remove, or direct to be altered, the offending poles and wires.

When parks' ornamental waters adjoined roads along which the telegraph was carried, the owners could compel the Company to divert the work, or carry them underground. Telegraph wires were not allowed to be carried above ground within ten yards of a house, or across an Avenue, without the permission of the owner. There was also a penalty of twenty pounds for any employee of the Company who failed to deliver a message, or who divulged the contents to unauthorised people.

The early telegraph, cumbrous as it was, was gradually transformed and many improvements carried out. The telegraph clerk with his hand manipulated apparatus soon gave way to the Wheatstone Automatic apparatus, which could transmit two hundred and fifty words a minute, or in other words, one wire was made to serve the purpose of five, as by hand not more than thirty words a minute could be dispatched. New American high speed apparatus increased this to one thousand, or to twelve hundred words a minute, over a short wire. Over a long wire the number was proportionately less.

Locally, the telephone had been growing in popularity since 1885, when the first two exchanges were opened in Hanley, and by 1890 many new trunk lines were in operation, many passing through the Potteries. In that year, the lines from Stafford to Wolverhampton, from Stafford to Stone and from Stone to Longton were in the course of construction. Telephone wires were already in existence from Longton to Kidsgrove, where they were met by those from the northern districts. The North Staffordshire Central Exchange, for trunk wire purposes, was shortly afterwards

installed in Hanley and by the end of January, 1890, police stations of the principal towns of the Potteries were 'on the wire.'

On Tuesday, November 14th, 1890, the National Telephone Company invited the Mayor of Hanley, Mr. M. Huntbach, to open the new trunk lines connecting the district with Manchester, Liverpool, Stone, Stafford, Birmingham, Coventry, Kidderminster, Burton, Nottingham, Sheffield, Leeds, Bradford, etc., thus making them available to any subscriber, whilst London was in reach from any call office in the district. As the Mayor was delayed in attending, Mr. W. Woodall, M.P., carried out the duties. The ceremony was held in the Council Chamber of the Town Hall, Hanley, which had been specially fitted out with apparatus for the occasion. Music was telephoned from Stafford as part of the ceremony of the opening programme, and 'The Lost Chord,' played upon the cornet, was heard from Manchester.

At this period, 1890, there were two hundred and eleven telephone subscribers in the Potteries and by degrees call offices were opened in various parts of the six towns for the use of the public generally. These offices were free to subscribers for local connections, on the production of a small metallic pass, and trunk charges to them were at a lower rate.

On a Sunday in April, 1891, The National Telephone Company invited their local subscribers to their offices in Cheapside, Hanley, to listen to a Church Service from Christ Church, Birmingham, with the aid of forty receivers, which gave ample sound for the occasion. The telephone was indeed still a great novelty. The novelty was, however, becoming a necessity and an ever increasingly important part of the life of the Potteries. Early in 1899, the Company decided to review the whole of their system, the main features of which consisted of the conversion of all subscribers' lines to the metallic circuit system and the installation of the latest forms of switching apparatus. Under the conditions then existing (1899) each line consisted of a single wire, the proposed method made it necessary for the two wires we know today, to be used for each subscriber's connection. It was at this period that cables were first laid underground in the six towns and with the introduction of paper as an insulating medium it was possible for a large number of wires to be made up into a very small area. At this period the Company's exchange in Hanley was situated in Piccadilly. The Company planned to own their own exchange buildings and with this project in view a piece of land was purchased at the corner of Marsh Street and Mill Street (Lower Trinity Street) with a frontage of seventy-four feet in Marsh Street and sixty-four in Mill Street. Operations on this building were begun about July, 1899, and completed early in 1900. This four-storey Rennaisance-style building stands almost without exterior alteration to this day (1958).

The National Telephone Company's Directory, for the year 1904-5, covered the whole of the Company's telephone system throughout the country. The Potteries district included Hanley, Burslem, Longton, Tunstall, Stoke, Newcastle, Chesterton, Blythe Bridge, Stone, Kidsgrove, Trent Vale, Goldenhill, Fenton, Longport, Cobridge, Etruria, Silverdale, Congleton, Trentham, Alsager, Leek, Stafford, Lichfield, Rugeley, Ashbourne, Uttoxeter, and Rocester, and the number of telephones in the immediate Potteries was in the region of one thousand two hundred.

There were seventeen public call offices. A subscriber on calling, would ask for

the exchange in question, together with the number required, i.e. Central 5Y or Longton 63.

Eighteen years later, in 1922, it was decided to install a system of automatic telephone exchanges in the Potteries. This involved the conversion of eight existing manual exchanges at Hanley, Longton, Newcastle, Wolstanton, Trentham, Chesterton, Silverdale and Endon, into automatic exchanges and the opening of four new automatic exchanges at Stoke, Burslem, Tunstall and Kidsgrove. The cost of the scheme was estimated at least £80,000. Ever increasing, the number of subscribers in 1922, was as follows :- Hanley, 1,619; Longton, 385; Newcastle, 311; Wolstanton, 102; Trentham, 64; Endon, 31; Chesterton, 34; Silverdale, 32.

Although planned to be completed by April, 1925, the Automatic Telephone was not in operation until November 26th, 1928, when the Automatic Exchanges at Hanley, Burslem, Longton, Stoke and Trentham were brought into service.

April, 1940, saw the setting up of a telephone manager's establishment in Stafford Street, Hanley. The Telephone Manager, Lt. Col. W. C. Huff, is in complete control of the district, which, in addition to Stoke-on-Trent, includes Crewe, Leek and Stafford.

Improvements were constantly being carried out and the Lord Mayor of Stoke-on-Trent, Mr. Percy Williams, inaugurated the 999 emergency telephone call service in the Potteries and Newcastle from his Parlour in the Town Hall, Stoke, during his term of office, 1945-6. By this method the caller received instant priority and could call Police, Fire Station, Ambulance or Miners' Rescue Service.

In April, 1957, the Lord Mayor, Mr. W. Bailey, inaugurated the most up-to-date automatic telephone exchange, in Commerce Street, Longton, marking the completion of the first stage of an extensive programme of telephone service improvements in the city. The Longton improvement meant that the 2,250 Longton subscribers were able to dial numbers on thirty-five exchanges within a fifteen mile radius.

Plans were also laid to rebuild, or extend, all exchanges in the City of Stoke-on-Trent, in order that the additional longer distance dialling facilities would be available to all subscribers.

At the time of writing, June 1957, the total number of subscribers' lines in the Stoke-on-Trent City area, connected to the exchange, is 12,200, and in this same area there are 21,000 telephones of various types, including extensions and others, in use.

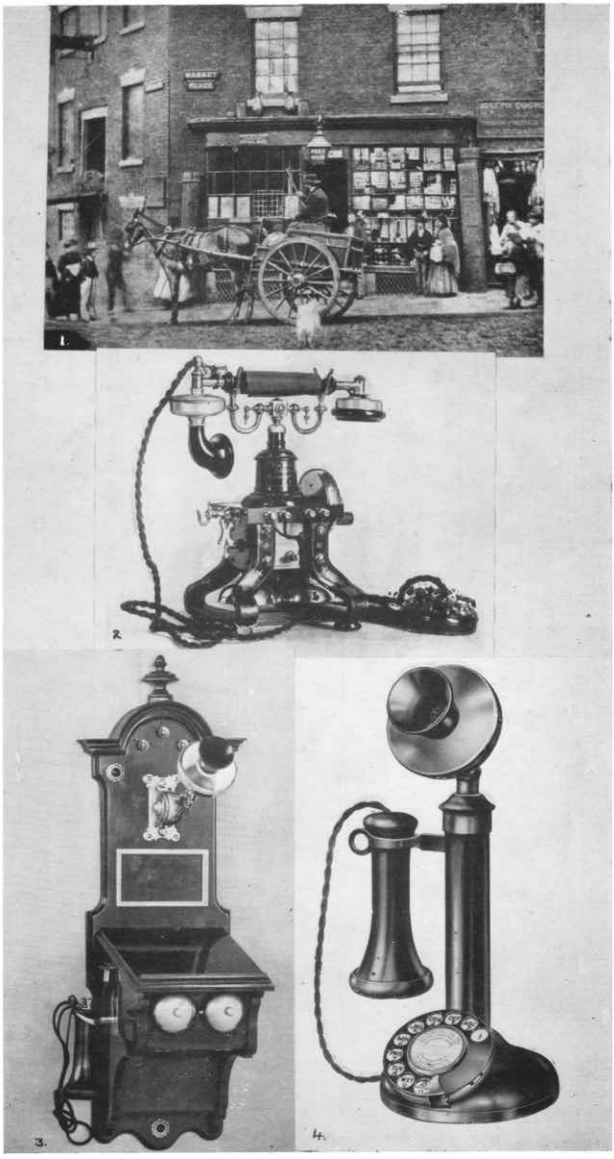
Wireless Telegraphy

Incomplete as this chapter must necessarily be when dealing with such vast and complex methods of communications throughout the years in the history of Stoke-on-Trent, one feels that in this direction one can only do one's best to present a general and reasonably interesting picture by word and photograph of this great romance.

It is perhaps fitting to close with a few paragraphs dealing with the early days of Wireless Telegraphy in Stoke-on-Trent.

It has been said that the eminent Stoke-on-Trent scientist, Sir Oliver Lodge, was the inventor of the wireless telegraph.

Born at Penkhull, in 1851, Sir Oliver Lodge, F.R.S., had a most distinguished career. Rival claims of Sir Oliver and Signor Marconi to the first discovery of the



For information see overleaf

1. Early post office Mail Cart in the Market Place, Burslem. Of the present Burslem Post Office Arnold Bennett wrote in 1909: "All Burslem was sneering, not many years ago, at the most ridiculous Post Office in England . . . the Postmaster-General's best joke."

2. Table Telephone used in the Potteries, *circa* 1907.

3. Wall Telephone adapted for use with Central Battery System. In use in Stoke-upon-Trent in 1900.

4. Director Dial Pedastal Telephone, *circa* 1926.

PHOTOGRAPHS 2. 3 AND 4 BY COURTESY OF H.M. POSTMASTER-GENERAL

wireless telegraph attracted much attention in England and America during the early part of the twentieth century (1902). It was, however, generally recognised that he was 'the pioneer of the invention,' and was said to be 'the first scientist to achieve definite results in wireless telegraphy,' and that Marconi and all others have followed in his footsteps.

As far as Stoke-on-Trent is concerned, the first communication to the people of the six towns and district by a professional broadcasting system took place on Trafalgar Day—Tuesday, October 21st, 1924, when the Wireless Relay Station 6 S.T. was formally opened in the King's Hall, Stoke-on-Trent, by the Mayor, whose speech was broadcast to all British Broadcasting Company's stations.

One of the eight relay stations in the country at that period, 6 S.T. came on the air for the first time at 7-30 p.m., on that Tuesday evening, when the people of Stoke-on-Trent, with their crystal and valve sets, first heard the words, 'This is 6 S.T. Stoke-on-Trent calling—on a wavelength of three hundred and six metres.' It was followed by the National Anthem.

The studio and control room of the station were at the rear of the Majestic Buildings, in South Wolfe Street, and the transmitting station was in Messrs. Minton's yard. The aerial, suspended from two tall chimneys, was 120 feet high by 160 feet long. The studio was twenty-seven feet long by eighteen feet wide, and contained a piano and cabinet gramophone. A feature of the programme was the daily children's hour. Friday, 24th October, witnessed the first full programme, broadcast from the new station, and was a completely local evening, with a long concert. Generally the programme came from London after seven p.m.

On Tuesday, October 30th, 1928, the Potteries Choral Society broadcast from the Stoke-on-Trent studio and was the last occasion on which a programme was broadcast specially for North Staffordshire. The wave length was changed and future broadcasts from the studio were received by Manchester, Liverpool, Leeds, Bradford, Hull and Sheffield.

It was not until January, 1955, that a new sound radio studio was again opened in Stoke-on-Trent. This time in Clayton Street, Longton, on the first floor of the Registrar's building, in connection with the Midland Region of the British Broadcasting Corporation. The Lord Mayor, Alderman Mrs. A. L. Barker, opened the service. After twenty-seven years, Stoke-on-Trent was on the air again.

CHAPTER 4.

Lighting

From Will-o'-th'-Wisp to the Fluorescent Tube.

Perhaps we are apt too much to take for granted the all important and vastly beneficial services of light and water in the City of Stoke-on-Trent.

Although of universal importance to everyone both services are intimately bound up with and form a vital part of the history of the six towns and surrounding district.

To view light, always a symbol of the hope of the world, one must turn to chapter one which tells of the distant ages when parts of ' Stoke-on-Trent ' were to a large extent swamp and marshland; its valleys often subject to flooding and its hills, on which future towns would be built, the only dry ground. It was in these swamps that the first lights would be seen—the dancing lights—' Jack o' Lanterns ' or ' Will o' the Wisps.' These lights which were supposed to lead travellers astray, often to their deaths in the swamps, are now known to have been caused by the spontaneous combustion of marsh gases from decaying vegetation giving the illusion of bluish lights darting above the ground. Later in the evolution of Stoke-upon-Trent, could be seen the little lights, produced by the glow-worm, in the quiet hedgerows on an area that was to become the thirteenth largest city.

Ancient man used an early form of lamp made of stone, hollowed by beating with another stone. Into this hollow he placed animal fat and used moss as a wick. Later the early English rush light would be used, made of the stems, or pith, of the rush, a plant which grew mostly in wet, swampy ground. This pith was soaked in fat and the fat, when set, formed a taper which could be lit to produce a feeble light. These were known as rush lights and were sometimes found set in small iron tripods with a stem to hold the rush pith taper.

Tallow was eventually used and formed an improved ' fat ' in which the pith was dipped. The result was a better light. Throughout the early ages this form of light was used by the moorland folk and those whose early homes were on the hills of ' Stoke-upon-Trent.'

A practical form of early lighting was brought by the Romans, whose pottery lamps burned oil with the aid of a rag wick. It was a great advance in lighting and was the forerunner of the oil lamp we know today. Such lamps were undoubtedly used in the district which today forms the Potteries. Made in drift or boulder clay the lamps were usually of a simple and elegant shape somewhat like Aladdins' Lamp without the top. Some of the finest examples of these lamps have been unearthed within the last year or so, by Mr. G. J. V. Bemrose and Mr. A. R. Mountford, on a Roman site at Hanford, and are of the first century A.D. These together with other specimens of Roman pottery may be seen in the Hanley Museum. The light produced by these little lamps, was steady and bright and would burn for long periods.

About the year 1300 A.D., early English oil burning lamps, on the same principal

as the Roman lamps, were being used. Some of these lamps consisted of small trays holding oil supported on triangular iron stands with two or more wicks at the corners.

It is said that the history of candle making goes back two thousand years. Most of the early candles were made by pouring hot beeswax, or tallow wax, on to suspended wicks until they were of the required thickness.

It would be difficult to say when candles were first used in this district to any extent. It is likely that the monks at Hulton Abbey would make and use their own, but one feels that it would be at least the year 1600 before candles were widely used.

The early eighteenth century would find the work of the *tallow chandler* much needed, his candles being in great demand.

In 1757, Josiah Wedgwood was working by candle light in the pottery manufactory and Charles Copeland, the lodge man at Wedgwood's, had the responsibility of giving out candles to the workpeople. In the Lodge was a candle "ark." The candles were made in Hanley and in the wick of each was woven a red strand, the object of which was to prevent pilfering. From this the monetary value of the candle can be gauged. A good candle would burn one inch per hour.

In some manufactories, between 1840 and 1856, men had to find their own tallow candles. The crude yellow tallow candles, unlike their beeswax counterparts, gave off an offensive odour, both when being made and when alight, and in November 1862, one finds that the Burslem Board of Health, objected strongly to Mr. John Wright's candle manufactory at Longport. They said it was a great nuisance. It was decided to take steps against the party offending under the clause in the Public Health Act, for establishing an offensive business without obtaining the consent of the Board.

In 1865, George Lander, of Masseys Square, Moorland Road, was the Tallow Chandler for Burslem. At this date there were also two tallow chandlers in Hanley, two in Longton, one in Stoke and one in Tunstall.

Beeswax candles would be used in the better homes of the Potteries. Only the rich could afford them. Apart from giving a better light they were without the offensive smell of the tallow candle. It would make many pages to describe the various beautiful lamps (the early ones had horn windows), candlesticks, sconces, chandeliers and coach lamps, relics of the past of which so few remain in the City of Stoke-on-Trent. Candlesticks were made in earthenware by local manufacturers. Many of these had conical snuffers which were used to extinguish the flame.

Candles were, then, the only good form of lighting for all purposes up to at least the middle of the nineteenth century. The mansions of the rich potter would be lit by them—the number burning regularly on his chandeliers and in his candlesticks being governed only by his opulence. His coachlamps and those of the doctor and other local worthies, would be lit by the flickering light of candles whose feeble light made the journey over Potteries roads, especially in winter, only a little less hazardous than had they been without.

Soon after 1671, when whaling operations began in America, sperm oil was used in lamps, but it was not until the advent of paraffin oil in 1870, that great changes in the lighting of the homes in the towns of Stoke-upon-Trent, were brought about.

The oil lamp, so familiar in the early part of the twentieth century, and which took the place of the candle, used the new paraffin oil in place of the crude oil. As mentioned

earlier, oil lamps, in various forms, dated back to Roman times and in a crude fashion before that period.

The first invention, which revolutionised these early lamps, came from France in 1783, when Leger of Paris invented the flat wick and burner. Double wicks gave more light and duplex burners appeared in England. Some of these lamps were magnificently made and decorated, bearing an assortment of cut glass, opalescent glass and frosted glass oil reservoirs and globes.

Colza oil, introduced in 1880, was also used as a lamp oil and by the lamp lighter in his torch. This torch, now almost legendary, and though still used in some parts of England to light the gas lamps it has rarely been seen in the towns of the Potteries since 1931, as the lamps have been automatically lighted by clock work lighters.

Lamplighters, often elderly people, had to rise from their beds in the early hours of the morning, to put out the lights in the gas lanterns in the deserted streets of the Potteries. One of these local lamplighters, who had been employed by the Gaslight Company, as a lamplighter for twenty two years, met his death when rising to carry out his duties. He was Ralph Malpass, aged sixty-five, who lived at 13, Nettlebank, which at the time, 1902, was a lonely spot. At about 2-30 a.m., he was walking downstairs to collect his torch, (which would also have a hook at the end suitable for turning off the gas tap designed to take it, and which may still be seen on the older lanterns in the city) prior to setting out to extinguish the lamps on his round, when he stumbled and fell. The poor man, who had suffered from fits for some time, fractured the base of his skull. He died shortly afterwards, and to quote the unkind witticism of a neighbour, " Put out his own light."

Thus the lamp lighter, once to be seen at twilight with his long torch, its elfin like flame a twinkling will o' the wisp of light, bobbing up and down as he walked the streets of the Potteries, makes a picturesque memory. The long hollow stem was surmounted by a torch of brass or copper pierced with small holes in which a wick that burned Colza oil was to be found. The flame could be projected into the gas lantern by means of a tiny jet of petrol operated by hand trigger and small pump in the stem of the torch. The gas was turned on by operating the gas tap with the head of the torch which was adapted for this purpose, after which it was withdrawn from the lantern and the small glass door allowed to close. In 1957, it was the considered opinion that there were only between thirty and forty professional lamp lighters left in England still using their eight feet long torches.

It was no easy matter to light the candles and the fires in the manufactories and the homes of the Potteries in those early days. From the earliest method of rapidly rubbing together two dried sticks, of the striking of a piece of ironstone against a flint stone, and later a piece of flint with a piece of iron, the methods were laborious in the extreme and required great care and patience with dry tinder to obtain a flame.

Only about the year 1800, did the mechanical tinder box, with its steel and spring operated flint striker, make the task of obtaining a light somewhat more simple. The flint was struck sharply against the piece of steel which caused the spark to fall into the box containing tinder, the tiny spark was then blown into a flame. Success depended on the size of the spark and the dryness of the tinder, but on the wet winter evenings when the light was most required, it often failed. Nevertheless, it was an

advance and one can imagine the servants at Etruria Hall, Longton Hall, Cobridge Hall and other mansions in the district, would be greatly pleased by the new ' automatic lighter.' Sulphur tipped wood spills were sometimes used in conjunction with the tinder box into which they were rapidly plunged to keep the flame going.

The earliest matches, invented by a Frenchman and imported into England about 1827, consisted of small sticks of wood, which were first dipped into sulphur and then into a paste composed of red lead and loaf sugar. Each box of matches carried with it a small bottle of sulphuric acid into which each match was dipped as required in order to cause it to burst into flame.

Later, Lucifer matches, invented by John Walker, an Englishman, and selling at twelve a penny, were used by the same method of striking as today.

Inventions were also patented in Massachusetts, America, about the same period.

As there was no Act of Parliament for, " lighting the townships or vills of Hanley and Shelton," until May 20th, 1825, the question of any street lighting in the six towns was the concern of the residents of each town (if they could be called towns) which was in complete blackness after dark. Horn lanterns, lit by candles, would be seen bobbing about after nightfall carried by those residents who were brave enough to venture forth, for robbery and assault were by no means infrequent. Perhaps the one lantern that remained steady was that in the hand of the watchman, or town crier.

Alas, although it is but some one hundred and forty years since these times, the past history of the early lighting of the Potteries is shrouded in blackness, only equalled by the winter evenings of the period and to try to give more detail would be to hazard only a guess.

Gas

The Watching and Lighting Act, applied for by the inhabitants of Hanley and Shelton, in 1824, and granted in 1825, and also granted to Burslem, on June 10th., of the same year; together with the coming of the first gas light in the Potteries in that year, was indeed to throw light on the subject, making it possible to present a fairly clear and accurate picture of the scene. The new Act gave powers to levy a public rate for the purpose of lighting and watching the towns. To Etruria, the Act was inapplicable.

It was William Murdoch, often described as the " Father of the Gas Industry," who first put coal gas to a practical use. Experimenting with coal gas, he lit his office, in Redruth, Cornwall, with it as early as the year 1792, and so the first use to which coal gas was put, was as an illuminant.

This was the beginning of gas lighting, probably the last mansion in the Potteries to be lit only by candle and later by oil lamp was Longton Hall, demolished in 1939. At that time one could still see several of the old brass-gilt brackets, black with age and decay, which held the lamps.

The British Gas Light Company, incorporated by Royal Charter, was formed on February 1st, 1824, and operated works in London, Norwich, Trowbridge and Holywell. Its Stoke-upon-Trent branch was known as the Potteries Station. The first section of the Gas Works, was laid down in 1825, on ground to the west of where Lower Bedford Street, Shelton (or Gas Lane) now is, having a frontage immediately to the

east side of the main canal. The second half of this works was built, about 1880, on ground on which the first Infirmary had stood, between the two canals, in 1804. On this ground today can still be seen the original Gas House and offices, together with modern spent-liquor and bacteria plant.

The Shelton works was, for a number of years, the only gas works in the district. When first in production it had only two gasometers, each with a capacity of 30,000 cubic feet of gas. Main and branch pipes were carried from the works to Hanley, Cobridge, Burslem, and Tunstall, in addition to Stoke, Fenton and Longton. The mains varied from two to ten inches in diameter, over a distance of at least thirteen miles, with an intricate network of branch pipes. The second half on the Infirmary Site contained a large capacity holder, purifying house, scrubbers and offices.

It was from this early works that the lamps of the Potteries area were first illuminated by gas. All public lamps had to be lit by hand, a practice that continued until 1930.

The first gas works was empowered to supply gas to Hanley, Stoke, Burslem, Wolstanton and Norton-in-the-Moors. Price of gas to ordinary consumers was eight shillings per thousand cubic feet.

In 1837, the people of Tunstall, availing themselves of the Watching and Lighting Act of 1830, levied a rate of sixpence in the pound on buildings and three half pence on land within the town, to improve their lighting conditions. The lamps of the main thoroughfare and streets consumed gas which was brought to Tunstall by the Gas Company's main via Burslem, a distance of some four miles. The gas was supplied for the street lamps at the rate of three pounds per batswing burner for the winter which covered a period from the beginning of September to the end of April. The batswing burner was the earliest type of light fitting and gave a fan or batswing shaped flame of medium brightness. Some of the shopkeepers at Tunstall availed themselves of the new flame. Burslem, the Mother Town, was lighted in a similar manner and in 1838, the system spread to Longport in the principal public streets. The town was supplied with gas from Shelton, between the years 1826-1837, after which date it was supplied by a local body of shareholders who built a works under the name of The Burslem and Tunstall Gas Company, at Longport with a capital of £23,000, later increased to £50,000. This works never actually supplied Tunstall with gas which was supplied by the British Gas Company. The Company supplied gas to all those who were piped and fitted to receive it which included street lighting, market halls, churches, shops and public buildings, at the rate of eight shillings for one thousand cubic feet of gas and fifty seven shillings, per batswing burner, for the winter months, from September to April. This resulted in a somewhat cheaper supply of gas for the town for a period. Hanley, Stoke and Lane End (Longton) were also supplied with gas by the British Gas Light Company during those early years from 1835, but for a period Naptha lamps were used in Longton, as the townspeople considered the price of gas too high.

About the period 1840-1843, a new gas works was completed at Stoke, which helped to supply the demand by manufacturers, public houses and even some of the better class homes in Stoke, Fenton and Longton. The new works was owned by the inhabitants, in the form of a joint stock company, bearing the name of " The Stoke, Fenton and Longton Gas Company," and was built on ground contiguous to Wharf

Street. This company continued to supply gas to Stoke, Fenton and Longton, without Parliamentary sanction until 1858, when an Act of Parliament was passed under which the company purchased the property and interests of the British Gas Light Company, in those three towns. In that same year (1858) a company was formed at Longton, for the " better supply of gas to the district," and a gas works was built on land to the west of Longton Brook.

The demand for the new illuminant was ever increasing. At Tunstall, where the Paving and Lighting Improvement Act had taken place in 1847, Mr. R. Hales, of Cobridge and surveyor to the Tunstall Board of Health, read a report in December 1850, giving an outline of the number of additional lamps required to light the whole district and amongst various other extensions of the lighting, the report contemplated the erection of the lamps from the then present termination in the Sytch, to the High Gate Inn, and from the Brownhill's toll gate to Longport, and to the Ville of Rushton Grange (Cobridge). The total number of the additional lamps required for the three townships, including five lighted since the previous report, was sixty five. This gives some idea of the good reason the British Gas Light Company had for erecting a new works at Brownhills, between Trubshaw Cross and Tunstall, in 1852, from which towns and villages to the north of the district would be supplied with gas for lighting, such as Goldenhill, Pitts Hill and Newchapel.

The number of street lamps was increasing with the erection of the new gas works and in September 1853, additional lamps were erected in the Burslem area. Three were in Hot Lane, two in the Sytch, one each in Regent Street, Albion Street (Dale Hall), Church Street, St. John's Square, Rope Walk, Hadderidge, Commercial Street, Mayer Street (Dale Hall), at Greenhead, and in Dale Street (Dale Hall); a total of ninety seven additional lamps, since the formation of the Board. Thus by September 1853, the total number of lamps, including the large lamps which were counted as one and a half lamps each, there were one hundred and eighty two lamps in the township of Burslem; thirty three in the Ville of Rushton Grange and sixteen in the hamlet of Sneyd, a total of two hundred and thirty one.

Without doubt some of the early street lamp standards and gas lanterns in the Potteries, were most picturesque and artistic in design—a feature that could well be appreciated today when we consider that there were, in the year 1957, 5,200 gas and 4,660 electric street lamps in the city !

Here again one regrets that none of the old lamps has been preserved, not even in photographic form. Happily it is possible to present illustrations of some of the later ones, before their beauty was lost in a mass of tall concrete standards, which are to be found in steadily increasing numbers on the main roads of the district. Indeed at the very moment of writing, Friday afternoon June 28th., 1957, the cast iron lamp standard, made by Dean and Lowe, Engineers, of Stoke-on-Trent, in the early part of the century, with its copper lantern, is being removed from the pavement immediately outside the old established Smallwoods' Wedgwood-ware shop, at Etruria. Alight for the last time until dawn this morning, it is the last of its type which was to be found on the Hanley to Basford routes. Secured by the author, it will be preserved as a relic of the old village of Etruria, for the month of June has also seen the demolition of most of its old houses, on the north side of the main street.

In view of the modern methods of lighting used extensively in shops today, an extract from the North Staffordshire Mercury, in December 1840, makes very interesting reading, for at this period, lamps burning an oil, inferior to paraffin oil, would be the main form of shop lighting. Indeed it would be part of the duty of shop assistants, such as would be found in the employ of Michael Huntbach, in Lamb Street, Hanley, to see that the oil lamps were filled, wicks trimmed and chimneys and globes cleaned. Referring to shop lighting by gas, it states that:—" In some shops lanterns have been placed outside the windows, having gas burners and reflectors within; but this gives the shop front an unsightly appearance, which is not compensated by the effect produced." " Others, again, have adopted ground glass over the gas burners. This, indeed, diminishes the glare of light, but at the same time reduces its quantity and produces a great waste of light inside the ground glass globes. The simplest and most pleasing disposition of the light is to elevate it high above the eyes of the passers by. By this means the rays are diffused generally over the articles in the windows, which reflect their several hues to the eyes of the spectators. The philosophy of shop lighting, in short, is this, that the articles offered for sale should be made prominent, and shown to the best advantage, whilst the means by which they are displayed, should be invisible."

Early street lamps in the towns of Stoke-upon-Trent, varied in size and in the amount of gas they consumed; the larger lamps containing three burners were put in in August 1854. As an example, in July 1855, the Burslem and Tunstall Gas Company, tendered for the lighting of the town of Burslem and proposed to light the lamps for the three ensuing years on the following terms; £3 for each of the old lamps; £3.3.0 for the extension lamps and £6 for each of the large lamps, which although they contained three burners were only charged as two by the gas company, and for the extra lighting of every second lamp on the four nights, on and about the full Moon 7/6, per lamp, this being considered equivalent to one month's lighting of each lamp. Members of the Board of Health felt that the 7/6 extra was too high.

Perhaps the Board felt that they had been spending too much money on lighting, for two months previously, in May 1855, they had examined the tenders, for the supply and fixing for the new Town Hall fine gas chandeliers, pendants and brackets, which were to be in bronze or bronze-gilt.

The tender of Ready and Meynel, of Wolverhampton, for the sum of four hundred pounds, was accepted, this being the lowest tender in the possession of the committee. It subsequently, however, turned out that two other tenders were, by some mistake in their transmission through the post, not delivered in time for the meeting; and the committee decided on the examination of these delayed tenders. The result was that the tender of Mr. John Whitehead of Preston, for three hundred pounds was finally accepted.

One year previously, in 1854, the gas company had lit the lamps all round the new Town Hall, from the beginning of August to the first of September, without charge.

Two years later, in April 1857, this company reduced its price of gas to 4/6 per thousand cubic feet, together with a great reduction in charges for meters and fittings. By September, of the same year, agreement had been reached by which the charge for ordinary public lamps was reduced to £2.15.0, per lamp per annum, and £2.18.0,

For information see overleaf

1. A fine specimen of a Roman lamp found during the excavation of a Roman pottery kiln at Hanford by Mr. Bemrose and Mr. Mountford of the City Museum. The lamp is of the first century A.D.

2. Evening scene at the junction of Rivers Street and Bryan Street, Hanley, about 1950. The gas lamp has since been removed.

3. A massive iron and silver-plated stage coach lamp, over 100 years old, which used a candle for illuminant. The lamp bezel is eleven inches in diameter. This lamp, once on a coach owned by the Earls of Shrewsbury, is likely to have passed through the Potteries after dark in the 19th century.

4. Gas wall-bracket made of brass about 1875. It typifies the variety of beautiful gas fittings made at that period. Now lighting a room in author's home it is one of a number that have passed through his hands.

5. A remarkable gas fitting of a similar date. It is a fitting once to be found in a well known local inn. Standing on the bar the tiny flame from the miniature brass cigar served to light the cigars of the 'gentry' who patronised the inn. It is now in the possesion of Mrs. Rowley of the Post Office, Etruria.

6. A fine example of a gas lantern in Parliament Row, Hanley, about 1880. The three bats-wing burners can be seen clearly. Although almost all the old lanterns have pessed away most of the old posts remain.

during the full moon, with a charge of 4/6, to all private consumers. The outcome of these agreements in the price of gas resulted in the company obtaining the Act of Incorporation, that they desired. Competition, at this time, was forthcoming from several independent companies, one of which was a new works built in Longton in 1858.

Let us revert for a moment to the original British Gas Light Company, at Shelton and Etruria, which must have the honour of building the first gas works, and which eventually became the great undertaking that it is today. Very little was recorded of this first gas works. Indeed the earliest record of management, is as late as 1843, some eighteen years after the opening, when the Gas Manager was a Mr. G. Dickenson, assisted a Mr. Loney.

The combined wages of the gas employees at the works at that period was between eighteen and twenty pounds a week. Labourers earned two shillings and two pence a day, and gas stokers three shillings and sixpence a day.

The annual production of gas, about the year 1847, was approximately thirteen million cubic feet, but few records were kept and the works was even without a station meter. Ten years later matters had improved and the annual output of gas had risen to thirty nine million cubic feet, extracted from coal at the rate of 6,350 to 8,520 cubic feet per ton. The price of coal varied from eight shillings and four pence to nine shillings and sixpence per ton, whilst coke could be bought at ten shillings per ton. The wage bill too, had risen to £44 per week, with a rise for labourers of four pence per day.

On March 11th., 1858, the final meeting of the Commissioners under the Hanley and Shelton Watching and Lighting Act of 1825, and the amended Act of 1828, took place when Mr. Allbut, the last Chief Bailiff of Hanley, reminded the assembly. " You are assembled together this day to surrender to the Corporation of the Borough of Hanley, the power hitherto in your possession as Commissioners." This had come about as the result of a Charter of Incorporation being granted to Hanley and Shelton, on May 25th., 1857, thus creating the Borough of Hanley, for an improved form of local government. In effect this meant that Hanley became the first Incorporated Borough of the Potteries, with a Mayor and Corporation. From this date onwards the important question of lighting the district, in common with other services, came under the new Corporation.

Etruria was one of the first villages to command the attention of the Council, for although it contributed towards the rates, it had, as late as April 1860, no form of public lighting. Here lighting was still a question of the odd lanterns outside the Etruria and Bridge Inns, and many residents still carried candle lanterns at night. This was remedied, and by the winter of that year, Etruria had its first gas lamps, which included four lamps in the Cobridge Road, and two additional lamps in Mill Street, (now Etruria Road.) between that street and the toll bar at the top of the Grove (approximately opposite the gates of the present park, where the road forks for Shelton). It was August of 1860 when Etruria obtained its street lighting.

In 1860, the Stoke, Fenton and Longton Gas Company, then managed by Mr. A. Young, declared a dividend of six shillings per share at their half yearly meeting despite the fact that a law suit—in which the Court of Queen's Bench, had on

February 25th., 1860, declared, " The Longton Gas Company, has no legal authority to open the public roads and streets for laying down their pipes, for the supply of gas, except only to the public lamps in Longton, and that they are therefore found guilty of the offence with which they are charged, of committing a nuisance by the obstruction of the public thoroughfare." The fine was only a nominal one, but it will be recalled that this rather ' cheeky ' company, supplied gas without Parliamentary sanction from about 1840 or 1843 to 1858. ' Cheeky ' too, was the British Gas Light Company, at Etruria, who charged just what they liked for gas, and it was not until an Act of Parliament of 1866, restricting the company to a maximum charge of three shillings and sixpence per thousand cubic feet, that a ' halter was put around the neck ' of this capricious but delightful little original gas works at Shelton, whose charge at one period (when they had the monopoly) had been as high as eight shillings per thousand cubic feet of gas !

Gas companies were indeed artful and Stoke, Fenton and Longton Gas Company, not satisfied with getting off with a nominal fine, sought, by way of the House of Commons, to obtain for themselves a power which the Courts of Queen's Bench had pronounced they did not possess, that of opening the public highways and so nullify the judgment of that court. The Company tried to achieve these ends by promoting, in June 1860, with the help of Mr. M. Mahon, M.P., a bill " silently introduced by Mr. Crawford," under the deceptive title of " a bill to remove doubts as to the power of opening highways and streets for certain purposes, and referred to in the newspapers, as the Highways, Roads and etc., Bill." This would have placed the gas company in the same position as incorporated companies, without subjecting them to those restraints which are imposed upon the companies by their acts of incorporation. The presentation of the Bill proceeded so quietly and rapidly, that in the space of a week, it had been read a first and second time, and considered in committee, almost before the incorporated gas and water companies had had their attention called to the provisions—so artfully concealed under its deceptive title—or had been made aware how deeply their interests were affected by the measure throughout the kingdom. However, the incorporated companies, soon put forth their strength, and in July, on Mr. Crawford's motion for the committal of the Bill, it was thrown out without a division ! The result of this attempt was the formation of an association to watch over and protect the interests of incorporated gas and water companies.

In 1858, a company was formed at Longton for " the better supply of gas to the district," and a gasworks was built at Longton, on land to the west of Longton Brook.

One cannot but admire the tenacity of the various local gas undertakings, who though out for business were also cautious. Thus when in October, 1861, the Stoke, Fenton and Longton Gas Company was requested by the Clerk of the Stoke Improvement Commissioners to light the then very rural area of Trent Vale, the Gas Company claimed that it would entail 1,650 yards of new mains and that as the prospect of obtaining private customers in that area was very limited and that as only eight public lamps were required it would not warrant the expense. Further exhortations brought a reply from the gas company, to the effect that if the commissioners would erect twelve new lamps, the company would lay the main and light them, at fifty shillings per lamp, and afterwards five and sixpence per lamp for lighting, cleaning and extinguishing.

The main was to extend to the Black Lion Inn, and from the canal bridge (then opposite to what is now Summerville Road, Trent Vale) to a Mr. Moore's house. It was finally agreed that the commissioners would erect fifteen lamps, but that they must go as far as a Mr. Jones's house !

At Tunstall, gas lighting was also prospering, and in June, 1864, the Burslem and Tunstall Gas Company, declared " Many of the largest manufacturers have been induced to light their workshops by gas light " and that they believed that by the following year, 1865, the practice would, become general, if not universal. Candle light, was on its way out of the pottery manufacturies, whilst at Burslem the police were complaining that they did not get sufficient light " to enable them to apprehend malefactors, in case any were about on dark nights." At the same time the directors of the company announced that they had a net balance of £2,470-9-2 and would pay the 1,600 original shareholders a ten per cent dividend and seven and a half per cent on the 2,560 new shares, free of income tax.

At Hanley, in October 1864, a new gas company, whose works were not yet built, was submitting charges to the Hanley Council which proposed to undercut their gas rivals by twenty-five per cent. They also offered to light the lamps for twelve months of the year, instead of the usual eight months. One Councillor stemmed the rush to accept by saying that he did not think the council was in a position to negotiate with a company whose works were not built.

At Stoke, in November 1865, the British Gas Light Company had offered to supply the public lamps at £2 per lamp, for a term of three years, with gas of a quality which would give a light equal to 14 candles. Each lamp would consume five cubic feet per hour. A price of £2-12-0 per lamp was finally agreed upon. Barnes and Giffard tendered for keeping the public lamps in order for three years, at 2/6 per lamp, which was also accepted. The Chief Bailiff, (Mr. J. A. Wise,) had complained of the quality of the illuminant and the lamps which, he said, were in a most disreputable state.

Late in 1865, the Longton Gas Company Limited, incorporated with Limited Liability, in 1858, gave notice of their intention to make application to Parliament for an Act to confer upon their company a number of powers, which would include extensions to their works, permit greater borrowing, to increase and regulate the capital of the company, and to light by gas the parish of Stoke-upon-Trent, Trentham, Caverswall and part of Stone, in addition to a large number of small improvements to the works. As a result of this, the laying of the foundation stone of their new large gas holder, took place in October, 1866 at the Longton gas works, by the Chairman of the Company, Mr. William Webberley, who recalled the difficult times that had passed since they first began to build the old works about eight years previously. In laying this stone he was starting, he believed, a successful future for the new works. They had, that year purchased the rights of the former rival gas company, which had been supplying part of the town of Longton with gas. A strike of bricklayers in the district at this time held up the work and, in addition, work had been made difficult by the unearthing of several old shafts and headings of old mines with which part of the Potteries was riddled.

Almost at the same time as building was started on the new works at Longton,

another gas works was closing down, that of the Hanley Gas Consumers Company. In July, 1866, a meeting of the shareholders was held at the Town Hall, Hanley, at which the chairman regretted the delay caused by the referees in giving their decision, respecting certain disputed claims made by the Gas Consumers Company, upon the British Gas Light Company for expenses. The result of their Parliamentary contest was that the price of gas was reduced to 3/6 per thousand cubic feet by the British Gas Company, and a maximum and minimum price of gas for illuminating purposes, was embodied in the Bill. The expenses of the Gas Consumers Company in the contest amounting to about £5,000, was paid by the British Gas Company. The Gas Consumers Company felt that they had gained a victory in compelling, by their action, the British Gas Light Company to reduce substantially their charges for gas, without which the British Gas Light Company would have forfeited their monopoly. As a result of the action, the cost of gas in all the towns had been greatly reduced. The affairs of the Consumers Company, were then voluntarily wound up. Satisfied too, was the British Gas Light Company's Potteries station, which would now be able to preserve its monopoly. After the Consumers' Company was wound up and the deposit of a shilling per share returned in full to all the smaller shareholders a handsome surplus still remained in hand and the directors decided that they could not dispose of it more agreeably than by providing a banquet for entertainment of the shareholders who had waived their claim in order that the smaller shareholders might not sustain any loss. Gradually, costs of the parliamentary contest, bitterness and ill feeling were forgotten and on March 3rd, 1870, a sumptuous dinner, in celebration of the winding up of the Gas Consumers' Company, was held at the new Queens Hotel, Hanley, (now the Town Hall) at which about fifty gentlemen, some of them members of the British Gas Light Company, were present, and at which there were many speeches when a light hearted resumé of the case was given. Everyone was well pleased with the final result.

Considering the state of the traffic in the Potteries at the present time, one would not be surprised if the number of lamp posts knocked down was very high. It is in fact, the reverse, compared with what happened with the comparatively small amount of slow moving traffic of the mid-nineteenth century. It is interesting to note that in 1867, the Lighting Inspector (Mr. Sweeting) reported that Thomas Collett, carter, had knocked down a lamp post at the top of Shelton Old Road. A Mr. Richard Burchill, of Bowsey Wood, was passing along High Street, Stoke, with a load of straw and knocked down the Post Office lamp. A James Durose, carter, had also knocked down a lamp in Wharf Street, Stoke, and Mr. Sweeting had recommended that as this was such a common complaint accounts should be sent to the offending parties for the amount of damage done. The recommendation was adopted.

In 1867, the Clerk to the Burslem Board of Health, presented a long report on the lighting of the Mother Town, where two hundred and seventy four ordinary lamps and seven with treble burners were maintained.

During that same year, the old House of Recovery, or first Infirmary (close by the first gas works of the British Gas Light Company, at Shelton) became empty and was purchased, with the land, by Mr. William Yates, of Hanley, for the British Gas Light Company, for the sum of one thousand pounds, in addition to a croft occupied by Mr. William Astle, who bred some good racehorses there. It was on this land that

For information see overleaf

EARLY LAMP POSTS IN THE POTTERIES.

1. One of the four ornamental iron standards erected to light, by gas, the front of the Wedgwood institute, Burslem in 1869.

2. Gas lamp in front of the North Stafford Hotel, Stoke.

3. Evening scene. Lighting a Potteries street lamp by the old method—a lamp lighter with his torch. Next to it can be seen an early lantern with its bats-wing burners which gave a fan-shaped flame.

4. Lamp post with lantern of the 1880 period in the High Street (now Church Street), Stoke.

5. Fine old gas lamp standard and lantern, one of four, situated outside Hanley Market, about 1870.

the second half of the gas works was built for the company about 1880.

By the end of 1869, the Stoke Improvement Commissioners, were able to report that it would take seventeen lamps to light the sub-district of Basford. The lamp pillars and lanterns costing fifty-five pounds would also cost forty five pounds per year for lighting. Basford was growing slowly and it was estimated that the lighting rate levied on the property and on some new buildings that were being erected would materially help towards the expenditure.

These lamps were very necessary in an area that was very lonely, especially that portion from the Queens Hotel, Basford, to Newcastle on which there were practically no other houses, other than Basford Hall, with its park, and Stoneyfields House. Indeed, so desolate was this area at this date that robberies, often with violence were frequently committed on travellers at night. Owing to the distance of Basford from the Stoke gas company's mains, the lamps were not erected until at least the end of 1870, and pedestrians to and from Newcastle continued to be molested and robbed as they stumbled along the then notoriously bad footpath, which connected Etruria with Newcastle, also the wall in the cutting at Basford Bank was in a very dangerous state and massive chunks were apt to fall on unsupecting travellers in the inky darkness of a winter's night. The footpath was in the care of the Highway Board, and the wall was the affair of the Turnpike Trustees.

By May, 1871, in connection with the Turnpike Continuance Act, the extension of gas lighting from Wolstanton Marsh and May Bank, to the boundary of the Borough of Newcastle-under-Lyme had been carried out by the erection of thirteen additional lamps, and the public were then able to travel from Newcastle to Goldenhill, a distance of between five and six miles, on a lighted road.

In January 1876, a special meeting of the Burslem and Tunstall Gas Light Company was held at their offices in Longport to decide about the sale of the undertaking to the Burslem Board of Health, for £80,000. The purchase was completed by September, 1877. The limits of supply, under this act of purchase, were the whole of Burslem and the township of Wolstanton. The gas undertakings of Fenton, Longton and Stoke, were acquired by the several local governing bodies in the year 1878 and up to the federation of the towns the various gas works were under the control of the respective Councils or Health Boards.

In 1877 an unsuccessful attempt was made by the Corporation of Hanley to compel the British Gas Light Company to sell their property in the Borough, and in February 1878, the Longton Gas Works, was taken over by the Corporation of Longton, so gradually the private gasworks, owned mainly by shareholders in the various towns, were being taken over by the Town Corporations or Local Boards, whose aim was to improve further the lighting of the district. In Hanley, in the year 1880, there were five hundred and ninety three public lamps in use on the main roads and in the side streets, and 1881, saw the addition of two further lamps in Newcastle Road, two in Beresford Street, Shelton, and five in the Cobridge Road at Etruria. A Bray's 100 candle-power lantern was erected at the junction of Liverpool Road and Shelton Old Road, which lay within the Hanley boundary and for which Stoke provided the gas and the Hanley Corporation the lamp. Sugg's lamps were erected in many places and Siemens had brought out a new gas lamp giving a light equal to one hundred and

fifty six candles for which is was claimed cost three farthings per hour to light.

The actual lamp posts were more often than not made in the towns of the Potteries, by such firms as the Manor Engineering Company, of Fenton, Cowlishaw & Walker of Stoke-on-Trent, whose lamps date back to 1892 and 1906 and are to be found in Shelton, Messrs. Dean and Lowe, of Stoke, F. Fuller Limited of Tunstall, Speedwell and Company, of Tunstall, and other local foundries. In Hanley, several of the old arc lamp standards, of considerable height, are still to be seen, and bear near their bases the old Borough coat of arms.

To complete and follow through the story of gas lighting in the district one must forget for a while the startling advent of the electric light, which began to claim the enthusiastic attention of the inhabitants of the six towns about the year 1881.

At Fenton, in May 1884, the new gasworks begun in October 1883, by the Fenton Local Board near to the boundary dividing Stoke from Fenton, was formally opened. Erected by the firm of E. H. Stevenson and Sons, the works were modern in construction, having an hydraulic crane to raise the coal from the adjacent canal to the upper floor of the coal store. Thirty six large retorts, arranged in six groups of six, were capable of producing 222,000 cubic feet of gas each day, which was carried by a twelve inch main to the condenser, and thence to the exhauster, worked by a powerful engine, made by Dempster and Sons of Elland, Yorkshire. The gas then went by way of the exhauster to the scrubber, which eliminated the ammonia and sulphur, then via a washer scrubber and through four purifiers, each twelve feet square, which removed the remaining impurities. The gas then passed through a meter, which registered up to twenty thousand cubic feet per hour and then into the main supply.

The official opening was by Mr. Birks, Chairman of the Local Board, who charged one of the retorts, to mark the occasion, and turned on the first gas made at the works, the supply from the Stoke gas works, having been cut off that morning.

October 1884, saw a big change in the street lighting of Stoke, which made it the best lighted town in the Potteries. The old lamp posts had been taken down and replaced by columns, supporting burners of sixty and one hundred candle power, which although consuming three times the amount of gas, gave four times the illuminating power of those which had been superseded. The new lamps had what was described as a simple contrivance, which at 10 p.m., turned off three of the four burners in each lamp, saving seventy five per cent of the gas during the night. The new lamps, made by Messrs. Messenger and Sons, of Birmingham, were not affected by high winds.

It was the British Gas Light Company, that was to survive and which eventually became part of the great gas undertaking of today. The old gas works contained three retort houses, with a maximum daily capacity of one and a half million cubic feet of gas, two condensers, a tar and liquid well, boiler and engine house, two fitting shops and a governor house. Here for many years, in peaceful surroundings, gas was made while on either side the shouts of the canal boatmen and the crack of their whips were almost the only sounds to be heard. These works, together with the Brownhills works, near Tunstall, produced two million cubic feet of gas per day. In addition, a further Act was obtained in 1895 to expend more money on the works and between 1887 and 1897, owing to the introduction of the slot meter and a better class of cooker, the output increased very rapidly.

About this time subsidence, a new and difficult problem, began to make itself felt in Etruria, the inevitable result of coal mining operations. It became necessary therefore, in 1900, for the company to obtain further powers to purchase land on the west side of the canal at Etruria below the old works.

The capacity of the new works was to be two million cubic feet per day. The Brownhills Works were to be held in reserve, but was in fact only used for a short period in 1919, while nearly all Tunstall was supplied from Etruria in 1906. This new works, built at the turn of the century, will be dealt with at some length and before passing to this final phase in the history of gas lighting, in Stoke-on-Trent, there are several points which occurred in the interim period, which are of considerable interest.

The main event was the lighting of the outside of the Market Hall, Hanley, by gas on the occasion of Queen Victoria's Jubilee in 1887. The market interior was also lit by hundreds of burners to illuminate the great aisles. In addition to the light the burners helped considerably in heating the building in winter. This was progress, but, alas, in Tunstall during the same year, a committee was formed to consider lighting the town by oil lamps unless the British Gas Light Company reduced their price of gas ! The use of this ancient method was avoided by a reduction in the price of gas to three shillings per 1,000 cubic feet.

A serious gas explosion at Basford, caused by a gas chandelier, recalls the really beautiful gas fittings that were made, particularly between 1850 and 1900. Some of the great pendants, four and six-light chandeliers in bronze and brass-gilt weighing perhaps several hundredweights, were magnificent in the extreme. One of these in my possession, with six-lights and a span of over four feet had been designed for the sporting enthusiast. The branches are in the form of the branches of a tree in leaf, at the end of which, beautiful models of panthers are crouched as if to spring, whilst the centre column is a mass of sporting tackle in miniature. Such chandeliers were emblems of the prosperous Victorian age when the prestige of England was at its peak and the prosperity of its upper classes was reflected in its magnificent gas lighting fittings and in other ways. Many of the chandeliers built for high ceilings were suspended on chains and weights and could be raised or lowered at will, so that the light passing through the beautiful cut glass and frosted globes, could be varied in brightness and concentration.

The explosion at Basford was with just such a type of chandelier. The danger was the water seal, which prevented the gas escaping from the moveable tubes, which also allowed the raising and lowering of the chandelier, one tube running into the other with only a water seal between them. Here was a very real danger. If the maid failed to remember to add water occasionally, the water dried up with the heat of the lights and the warmth of the fire in the room and the gas escaped sometimes with disastrous results. So it was at Basford in November, 1890, when a Mrs. Greatbach entered her drawing room. After preparing to go out she turned down the light of the chandelier. In doing this she pulled the chandelier—which had a weight attachment—down, and then heard a gurgling noise as of water. Later at about eight thirty p.m. Mr. Greatbach entered the room, and struck a match. He remembered no more, for the shock of the explosion which followed made him lose all consciousness.

When he came to himself he had no idea of what had taken place. The force of the explosion was terrific, and felt even by the passengers in a train which was entering Etruria station. "At the Queens Hotel, it caused great alarm and all rushed out thinking that some accident had taken place at the Etruria forges. The force lifted a young man, who lives next door, off his seat." Most of the windows of the house were blown completely out, walls cracked and door posts torn away. The ceiling of one bedroom had fallen in and the drawing room door smashed to atoms. Mr. Greatbach, although seriously injured, escaped with his life.

Less dangerous were the equally beautiful gas wall brackets, gas lights and torches, often supported by almost lifesize bronze figures. In the better class hotels and public houses, could be found, delightful little brass-gilt figures, often in the form of a barman smoking a cigar. These were fixed to the bar and from the little brass cigars tiny gas flames burned, from which patrons could light their own cigars.

Of gas chandeliers, Mr. Wilcox Edge, of Burslem, speaking at a dinner celebrating his eightieth birthday, in February 1923, said "A gas chandelier was looked upon with great awe. Just at that time, when I was a little fellow, a gentleman came to Burslem, from the Island of Tonga, in the Pacific. He was a Wesleyan missionary and stayed at my father's house. Wanting to send a present to the King, my father thought that as chandeliers were very effective here they might be valued out in Tonga." So he bought one of the best gas chandeliers he could find, and it was sent out as a present to the King of Tonga. Two or three months ago Mr. Edge was entertaining in London two Australian gentlemen, one of whom had lived in Tonga a long time and the other who had recently been there. Out of curiosity he asked them whether they had been to the King's Palace, in Tonga, and they said they had. When he asked them what there was to be seen there, they replied, "There is a chandelier hanging from the roof." And so the Burslem chandelier, still held its glorious position in the island of Tonga.

Lighting, on the great gasoliers, wall brackets and other lamps, was by small brass batswing burners with porcelain slotted heads, from which burned a fan-shaped flame. The little burner is by now almost an historical relic. Its elfin-like light hissed softly as it burned. Its light often varied in brightness, burning low when lamps were lighted in other rooms in the house thus giving a somewhat uncanny effect. In 1885, an important event took place in the history of gas lighting. This was the introduction of the British made Welsbach upright incandescent mantle. This mantle, of fine woven Ramie-silk yarn dipped in certain oxides, gave a brilliant light. It was fragile and easily broken but would, with care, last indefinitely. It was claimed that it would save half the gas bills and yet give more than double light of the old burners. Special burners were sold for one shilling and sixpence each and mantles at seven pence halfpenny each. The new mantle was hailed in Stoke-upon-Trent, with something akin to wonder and with satisfaction at the several gas works. Either by an oversight, or more likely by a little smart business, it was found that the sole agency was held by a local artist and photographer in Piccadilly, Hanley, so that all gas mantles had to be purchased from him.

Meanwhile, the gas works at Stoke and Burslem continued to flourish and in 1898, two years before the large new works at Etruria was started, the records showed that

For information see overleaf

1. Old lamp post at the top of Epworth Street, Stoke, marked 'Stoke.' It is of the same design as the old lamp posts to be found in the region of Heron Cross Schools and Queens Road, Hartshill. They were all marked Fenton and dated 1839 and 1859. The gas lantern on the Epworth Street post is one of the oldest types extant and has survived through the years. Much damage to street lamps is caused by children and youths which for the year 1957-8 alone was estimated at £2,500.

2. Old gas lamp situated at the junction of Elder Road and Sneyd Street, Cobridge, marks the site of Cobridge school. It bears a plaque inscribed, "Site of the Old School House, Erected 1776, Demolished 1897." In May, 1958 the lantern and post were removed but the plinth bearing the inscription remains.

3. Old type lamp-post still to be seen in Wood Street, Longton. It bears no visible date.

4. Twilight in the Potteries. The winter sun sets and the gas lights come on (automatically) in this early evening scene by the canal bridge in Shelton New Road, Shelton, in the year 1954. An Etruria gas holder dominates the scene.

Burslem had increased its output of gas from 77,000,000 cubic feet in 1879 to 165,000,000 cubic feet in 1898. The number of consumers had risen from 3,100 to 5,842, whilst the number of street lamps had increased from 336 to 692. The number of heaters and cookers supplied in 1897 had been 730. At Stoke, the records were similar.

Returning to the British Gas Light Company, at Shelton, we find that conditions at the old original works were far from satisfactory. The largest holder was leaking gas very badly, whilst it was impossible to unseal the second lift of the holder, owing to its being so much out of perpendicular. In addition, only the top lift of the small holder, could be used and the total capacity of the three holders, in 1897, was only 650,000 cubic feet as against a maximum of 1,5000,000 cubic feet of gas. This was all due to subsidence caused by coal mining. So short was the supply of gas at this period, that it was recorded that on one occasion the gas works manager led his men on to the crown of the holder, in an effort to weigh it down and so extract the last few cubic feet of gas out of the holder.

In those early years of gas making men worked a fifty-eight hour week, at wages varying from two shillings and sixpence to four shillings and sixpence per day, with no overtime for Sunday duty. There were no unions and all disputes were settled at open meetings, where satisfactory terms were usually agreed upon, " the utmost good feeling being shown by both sides."

The new works of the British Gas Light Company was opened at Etruria in November, 1904. Here had remained a relic of Etruria's pleasant land. The site of the works was surrounded by green fields and a few trees past which flowed the Fowlea Brook. There were few houses or factories in the area. The works had a capacity of two million cubic feet of gas a day. By 1906 the works was almost complete, together with railway sidings. The offices of the company were situated at the top of Broad Street, Hanley, but the building, dated 1878, has for many years now been used as showrooms for the workshops for the blind of the city.

The Federation of the six towns in 1910, by an Act of Parliament, made clear the fact that a central gas undertaking would be best for all towns concerned and in 1919 a centralisation scheme was suggested and negotiations were opened between the British Gas Light Company and the Corporation. On Friday, June 30th., 1922, the works at Etruria were taken over, with the sanction of Parliament, by the County Borough of Stoke-on-Trent at a cost of £345,000. The Corporation also took over liability for the £40,000 3½% debenture shares.

Stoke and Fenton gas works were the first to be closed down, and by 1924 those towns were receiving gas from Etruria. The general residues, received by the Corporation from the carbonisation of the coal had, for many years, been sold to chemical works to considerable advantage. It is not surprising that a new modern chemical works was soon to be built at the Etruria gas works on fields and ground that had once been used as allotments. The first part of this works was completed and opened in September, 1926 and the second portion in the December. The plant comprised tar distillation and sulphate of ammonia apparatus, together with tar and liquor storage tanks. The capacity of the original plant was fifty tons of crude tar daily, plus a large quantity of sulphate of ammonia. Three storage tanks were capable of holding

half a million gallons each.

By the year 1928 it was felt that an inaugural ceremony of the centralisation of gas manufacturing at Etruria should be held and this was performed by the Rt. Hon. Stanley Baldwin, M.P., on April 27th., 1928.

So fine a works was not without its own showrooms. The main one had been opened in Hanley, on Tuesday, July 14th., 1925, with branches in the remaining five towns. At these showrooms a wide range of lighting fittings, cookers, fires and radiators, water heaters, wash boilers and washing machines were on view. In industry, full scale tests and demonstrations of the adaptability of town gas to the varied processes relative to pottery manufacture were carried out. Firing of tiles, earthenware, china and porcelain by gas was, and still is, increasing in the city. By 1956 one hundred and twenty members of the British Pottery Manufacturers' Federation alone, were firing ware in two hundred and seventy five gas-heated kilns, a figure which rose by the autumn of 1957 to over 300 kilns, having improved since 1932 when the first kilns fired the pottery in open flame tunnel ovens in which ware was placed in saggars to prevent the flame making direct contact with it and also to avoid a too rapid rise or fall in temperature. The modern gas-fired car-tunnel kiln is now highly efficient and many used in small factories consume only a few hundred cubic feet of gas an hour. The open-placed truck used in the open gas-flame-fired tunnel kiln is a notable advance resulting in improved heat distribution with a lower gas consumption. The gas supplied from Etruria is highly refined and one therm of this gas is able to do the work of up to eight therms of coal when applied for maximum efficiency. Thus gas is used in great quantities in muffle kilns, firing decorated pottery and glost ware and in open-flame kilns firing biscuit and glost ware. In October 1957, Methane gas was added to the vast supply of town gas at Etruria when the Lord Mayor of Stoke-on-Trent, the Reverend Arthur Perry, inaugurated the North Staffordshire Methane drainage project. Methane is piped from Wolstanton Colliery to the Etruria works and will, in the course of time, be directed from numerous collieries. As Methane gas is a great danger to the miner underground the new system will reduce the danger in the mines as well as assisting the supply to the pottery industry which now consumes approximately 6,422 million cubic feet of gas a year. It is said that a large pottery manufactory now consumes in one day as much gas as is required by several large towns. The Methane gas is blended so well with the gas at Etruria that it is also used in the homes of the six towns and district. Thus the use of gas is resulting in a Potteries from which the pall of smoke is gradually passing.

On March 31st., 1928 a new record in gas consumption was reached, when 1,600 million cubic feet of gas was made at Etruria. Reconstruction of the original horizontal retort house at the Etruria works increased its capacity by three million cubic feet of gas a day. A Glover-West continuous vertical retort house was erected to produce three and three quarter million cubic feet per day. These two plants, along with a water-gas plant of a capacity of one and a half million cubic feet per day, met the needs of the six towns of the Potteries and surrounding districts, until the erection, in 1932, of the first gas fired continuous tunnel oven, for firing pottery ware. This brought with it an ever increasing demand for gas which, by 1949, was being used for this purpose at the rate of three thousand three hundred million cubic feet a year.

To meet this huge demand, gas was in 1935 and 1938, being supplied from the coking plants at Birchenwood Coal and Coke Company at Etruria.

In April 1933, Alderman G. H. Barber, a chairman of the gas committee and former Lord Mayor and Freeman of the City of Stoke-on-Trent, who to quote his own words, rose from 'Workhouse to Lord Mayor,' offered to put down, at his own expense, a complete benzole recovery plant at Etruria, if he were allowed whatever it produced in the first year's workings. Such was his faith in a process which had met with much opposition, in spite of Mr. Barber's pleadings over many years.

Actually during the 1914-18 war, a small benzole plant had been in operation at Etruria, for war purposes only, under the managership of Mr. H. E. Copp. It was not until February 1934, that a benzole recovery plant came fully into operation. By 1946 it had recovered a total of three and three quarter million gallons of crude benzole, all of which had been distilled to motor benzole and toluene before leaving the Etruria works. For many years it was possible to purchase the spirit from a pump, set up immediately opposite to the main gate and offices. Thus encouraged, a new benzole rectification plant, capable of dealing with nine thousand gallons of crude benzole per week was put down and brought into operation in April, 1945.

Several years later more plant was installed which made it possible to deal with ten million cubic feet of gas per day. The latest plant installed was designed to extract 85% of the available benzole from the gas.

During the second World War (1939-1945) the gas works at Etruria was subject to attacks from the air. The most severe of these was in the late January of 1941 on a clear and frosty night lit by a full moon. Using the railway line as a guide the attackers dropped hundreds of incendiary bombs making the valley between Stoke and Longport one long line of fire. Several hundred incendiary bombs were dealt with at the gas works, many falling on to the waterless gas holder (near Etruria Station) which had been emptied as a war time precaution. Unfortunately, the crowns of four gas holders were penetrated and jets of flaming gas soared skywards which, but for timely action of the works staff, would have had disastrous results. The crown was covered in ice and extremely dangerous to walk on. These also acted as great mirrors in the light of the moon. The clay which had been placed on the crown for an emergency such as this was frozen, thus adding to the difficulties of plugging the holes caused by the incendiaries. The enemy, seeing the blaze returned to bomb the holders with high explosives. Fortunately they failed to hit their target. For the night's good work, members of the staff were honoured by His Majesty King George VI.

Sanction was sought, during the years of the Second World War, for extensions at the Etruria works, which would enable the production of an additional six million cubic feet of gas a day. The scheme was approved in 1944 and partly completed by 1946. The scheme included carbonizing (gas making) plant, coal handling plant, coking plant and storage bunkers, detarrers for removing tars with almost perfect efficiency, plus the new Benzole plant already mentioned.

May 1st., 1949, saw the nationalisation of the gas industry and Stoke-on-Trent Corporation were reluctantly forced to give up the works of which it was so proud. Despite this, a pleasant co-operation exists still between the two bodies and in Novem-

ber 1949, at which a number of old officials were present, the inauguration of the five million cubic feet capacity waterless gas holder at Etruria took place when the former chairman, Alderman Percy Williams, opened the inlet valve in the presence of the chairman of the West Midlands Gas Board, Mr. G.Le.B. Diamond C.B.E., and a large gathering.

The great gas making centre at Etruria is limited only by the amount of ground available to build on. The ground on which the original works was built is being put to good use and is suited to light buildings. The original Gas House, having been empty for so many years, seems likely by mutual agreement to become corporation property, together with some of the ground under which main sewers run.

One feels that the inauguration ceremony of April 20th., 1955, at which Colonel Sir Harold Smith, Chairman of the Gas Council, opened a further extension of gas manufacturing plant at Etruria, must mark an almost final step in the improvement of a great works which now has used up most of the available ground. Today the giant Etruria Gas Works stretches from Etruria Station to the canal bridge at Lower Bedford Street, Shelton. The latest plant is capable of producing 8,000,000 cubic feet of gas per day, whilst the total plant at Etruria was in 1955 capable of supplying almost 79,000 consumers, some of whom were manufacturers burning vast quantities of gas. In addition, at the time of writing, August 1957, gas is consumed by a variety of gas lamps totalling 5,200 on the roads and streets of the City of Stoke-on-Trent. These lamps are now all automatically lighted and extinguished by a pilot light and clockwork apparatus, which has to be wound every fourteen days. The standard lantern in the side streets carry three burners and mantles and the large lanterns six to eight lights. The candle-power of the ordinary triple-mantle gas street lantern is one hundred and thirty candle-power, while the three-bulb electric street lantern usually contains three 60 watt or three, 100 watt lamps.

This last additional plant is unique since it forms in itself a complete and independent works. It is situated adjacent to the older works on forty eight acres of ground formerly occupied by the Wagon Repairs Limited, at Cliff Vale. The application for the building of the new works was submitted to the Ministry of Fuel and Power in November 1947 and work was started in June 1950, when old buildings were pulled down, the ground levelled before building could begin. The works contains a retort house, a coke screening plant, detarrers, condensers, exhausters, gas compressors, generator and switchgear house, and ammonia washers. There are also a station meter and calorimeter room, benzole washers, tar and licquor wells, benzole recovery plant, water circulating pump house, rail weighbridge house, and water cooling tower, the whole forming a complete gas works, which is in every sense modern and operating with maximum efficiency.

Before passing to electricity, it is interesting to recall that with the passing of the coach carriage era the motor car appeared with its acetelyne lamp. During the years between 1910 and 1925, this fine method of lighting was to be seen on the cars, motor cycles and cycles then running through the six towns of the Potteries. Indeed one of the "trade marks" of these vehicles was a small heap of white powder found at intervals by the roadside. These would present a mystery today, but the keen school boy of those days would know that yet another motorist or cyclist had refuelled his

lamp with calcium carbide. The lamps, usually separate from the 'generator' were fitted with Bray's batswing burners and having a magnifying Mangin lens reflector, gave a brilliant light which defied the winter winds coming in from the moorlands. For many years these lamps competed successfully with the early electric car and cycle lamps, but they have now become museum pieces.

ELECTRICITY

Although the romance and history of the gas industry in this district is older than that of electricity, the approach of the latter must have been viewed with some trepidation. However, as an illuminant it was to prove particularly convenient and clean.

So far as the Pottery towns are concerned the first record of a display of the use of electricity took place in the Market Square, Hanley, on March 16th, 1879, when Messrs. Welch and Scotts' Electric Light, was exhibited to a crowd of Pottery folk who were extremely curious. "The light was very large and powerful, and literally filled the Market Square with a continuous ray of light, which was as clear as day. The pale yellow gas light of the various shops in the locality, compared with the effulgent rays of the electric lamp, appeared to shine under difficulties." From this time one might say that in the district the great battle had begun.

In December 1881, the Hanley Markets and Town Hall Committee, were considering a letter from the British Electric Light Company, to the effect that "the British Light, would displace from eight to sixteen gas lamps, according to distance," a statement that was indignantly denied by the British Gaslight Company, whose hundred candle power lanterns were considered the last word in street lighting. The document, in an effort of dictatorial bravado, also stated that such was the demand for their electric light, they would only undertake contracts on such terms as would admit of the system being profitably employed, which was by using it on such a scale which would require central stations to be built in the district. The company had also stated that the cost should not exceed that of gas ! Not all were in favour and many were suspicious of this new and mysterious light. However, in December 1882, the Hanley Town Council, convened a special meeting to consider an application of the Hammond Electric Light and Power company, who wished to apply to the Board of Trade for a licence to supply electricity within the limits of the Borough of Hanley. Further it was to consider notices issued by the Hammond Company, the Gulcher Electric Light Company, the Jablochkoff Electric Light Company Limited, Messrs. Charles Philips and Company, the South Staffordshire Electric Light Company, and the Swan United Electric Light Company, for provisional orders. After a very long meeting it was resolved to treat the offers cautiously and to let the General Purpose Committee consider the matter in detail. Various experiments were tried by movable generators, usually at a cost of about £100. The Hanley Market, was one of the first public buildings to be lighted by electricity, although it was about two years after the opening of the power station. This was due to the fact that although the fish market and covered market were completely wired by January 1896, it was not considered safe to connect it to the mains until more power was avaliable at the generating station. The lighting of the market halls delighted the Hanley Town Corporation, who were still very sore about their failure to purchase the gas works. The new light

was not altogether successful. A common fault in those early days was that it flickered a great deal. An Alderman of the Borough, who was also a shareholder in the gas company, described the new incandescent light as the " new indecent light as it was winking at all the girls in the market hall ! " Fortunately, the gas industry had the new Welsbach incandescent gas mantle which could ' hold its own ' against the electric light—without winking !

It was not until 1892, that Aldermen and Councillors of the Hanley Town Council, decided that the time had really come to introduce the electric light into the Borough and for a period it seemed that gas—whose historic pinnacle of fame was perhaps reached on the occasion of Queen Victoria's Jubilee in 1887, when the great market in Hanley was made more beautiful at night with its gas illuminations—might be about to receive a fatal blow. Later events were to prove that such was by no means the case and that the two services would work successfully side by side throughout the years to come.

The first electric power plant was built in Hanley, on land adjoining the canal and Bethesda Road. Tenders for these works had been considered in August 1892 and the choice lay between direct current and alternating current, which in those days were being developed by different companies. A tender by the Brush Electrical Engineering Company for £13,037 was accepted by the Hanley Corporation. (The actual amount spent on the actual installation was £21,000.) The high tension A.C. mains were to be laid in cast iron pipes and low tension mains, consisting of two cables placed in bitumen and cast iron troughs. The supply was generated at 2,000 volts and it was single phase, alternating, at a frequency of 100 cycles per second. The first electrically lighted street lamps in Hanley from the new supply, were of the carbon arc type, suspended high above the principal streets and a few of these rather fine ornamental iron standards can be seen to this day. From these the arc lamps would be suspended and in wild weather would swing to and fro. These Brush arc lamps, gave an excellent light, but needed constant attention to the carbons. They were powered from machines independent of the private supply. The bye-streets had incandescent lamps, which were lit by means of Lobley's patent automatic switch, when the arc light circuits were started each evening, so that the whole of the street lights came on simultaneously, by switching on at the generating station. The works were built under the supervision of the Borough Engineer, Joseph Lobley, and the first Corporation Electrical Engineer, G. H. Cottam.

The new works were opened on Thursday, July 26th., 1894, by the Mayor of Hanley (Alderman E. J. Hammersley). It was a notable day for the town, for not only was the electricity works opened, but also the first section of the new park. It was also unusual that work on the two undertakings had begun at the same time. The new lighting system was considered very satisfactory and, within a short time, was fully subscribed for. It had an output of about 10,000 bulb lamps, working on 100/200 volts, of which 8,000-9,0000, had been applied for by the opening day to be charged at the same rate as gas—approximately 3/- per light—for an equal period of time. At the opening, the Mayor spoke somewhat bitterly and sarcastically, about the British Gas Light Company. " The Gas Company," he said " has a revenue of something like £32,000, out of Hanley and Tunstall. For the future they (the Corporation) will

have their own revenue and spend their own money, and there shall be no dividends going to London (Head Office of the Gas Company) if I can help it ! " It was hoped that within a short time the lower portion of Shelton would be illuminated by electricity.

In the December of this year of the opening of the new works, electric light was installed at the railway station at Stoke.

One year later, in October 1895, an enquiry was held in Hanley for permission to borrow, under the Electric Lighting Act of 1887, £20,000 for the purpose of extending the electric light in Hanley. It was proposed to extend the mains to various parts of the town and to several areas outside. The sum was to be spent as follows; £5,508 on new cables; £5,900 in extending the generating station; £1,242 for lighting the new Park Road, which was without arc lamps; and for other roads near the park, £4,850 for extensions rendered neccessary by the great demand of customers and £1,500 for meters.

By January, 1896, there were 11,550 lamps connected to the mains in Hanley. During the early period, the Hanley Corporation were only permitted to supply current during the dark hours of the evening up to midnight. In the summer time this was not very economical for the works, as the dynamos had to be ' kept in motion ' so as to have the mains always charged ready to give supply to any consumer. Also, the Board of Trade rules and the Hanley Electric Light Provisional Order required the pressure not to vary 4% from the normal 100 volts.

The report of 1898 showed that the novelty of the new light was giving way to a more cautious consumer, who was using the light more economically, and even the reduction, in price from 6d. to 5d. per unit, had not brought with it the desired increase in consumption. In September 1897, the council had adopted the principal of charging at the option of the consumer for electricity, by a sliding scale, known as the maximum demand rebate system, which came into operation on January 1st, 1898 enabling all who desired it to pay 5d. per unit for an average of two hours per day in the winter half-year or one hour per day in the summer half-year and 2½d. per unit afterwards.

There were occasional breakdowns. One of these was recorded in October 1898, when Hanley " experienced another temporary eclipse on Monday, the electric light being extinguished for twelve minutes." The large Ferranti 500 h.p. machine having broken down. This was caused by two coils of the armature giving way for the greater part of the load was on this machine at the time. Speaking generally, such mishaps were only temporary and the venture forged ahead, and in December, 1900, the Board of Trade gave permission for an alteration of the standard pressure of 100 volts to be increased to a pressure of 200 volts. In addition the mains were extended from Broad Street, Hanley, along Victoria Road to Cleveland Road. The light had been taken down to Cauldon Place, where there were more consumers than any other part of the town.

Nevertheless, the new light was greatly appreciated, and soon the other towns of the Potteries were deciding to have their own electric light.

Longton was the next to follow and in September, 1898, sought a provisional order from the Board of Trade, under the Electric Lighting Acts of 1882 and 1888, authorising supply in the Borough for public and private purposes, and by September 1st., 1901, a direct current plan was in operation. Stoke followed in 1904, and

Burslem in 1905, both using the direct current system. The three last mentioned towns worked on voltages of between 220 and 240 volts.

Some idea of the lighting of Stoke may be gathered from the fact that in 1904, the Stoke Town Council reported that there were 724 public lamps to light, extinguish, repair and clean within the borough. The lights of Fenton, in the year 1906, represented a total of 14,738 eight-candle-power lamps by 209 consumers, using 18,831 units of electricity, an increase of 174% on the previous year, the electricity being supplied to the Fenton Urban District from Stoke and Longton.

During the year 1906, considerable discussion took place in Hanley, on the question of " Gas v Electricity," not only as an illuminant, but also from an economical point of view. There could be little doubt that electricity had turned out to be the more expensive and the Electric Lighting Committee recommended that, " an increese in tha number of lamps shall take place without extra charge to the lighting of any street in which lamps were already working, beyond the sum already received by the electricity department, until the average price per post falls to £2-13-4d., which price is charged by the gas company for a 5 cubic foot batswing (fan shaped flame) burner." In conjunction with this it was recommended that the number of lamps in Etruria Road and Lord Street, Etruria, should be doubled. The committee were anxious that tradesmen should use more arc lamps, which were offered to them at a quotation of £5 per lamp per year, whatever the consumption of the lamp might be. The Hanley works had sold 230,000 more units in the first six months of 1906 than in the same period of 1899, which gives some impressions of the advance of the new light. Despite the glowing account given by the engineer Mr. Yeaman, and whilst the advantages of of electricity were acknowledged for private lighting, gas had the advantage in the lighting of streets and other public places. It was used in many parts of England, such as Wigan, Banbury, Wellingborough and in many of the districts of London, such as Queen Victoria Street, Billingsgate and Fleet Street and even in the Borough of Islington, where Mr. Yeaman had previously been ! Here, at Islington, one sixth of the whole of the borough had been lighted by electricity at a cost of £5,200 and the other five sixths of the borough by gas, at a cost of £4,000 ! In Liverpool the cost for a mile of electric arc lamps with posts at fifty-yard intervals, worked out at £581, and for the same mile by gas only £115. It was estimated that, had Hanley accepted the offer of the British Gas Light Company, the town would have been saved some £875 a year. The offer had been that the gas company would have given, at about 30% less in cost, at least double the amount of gas the Corporation of Hanley then had. Also the comparisons had been made with batswing burners in the gas lanterns, when in fact the gas company had proposed, in their new offer, an incandescent burner, which lifted the gas street lamp from the medeival to the modern and to something like the brightness of street lighting by gas that we know today. Although it cannot be denied that, in 1957, the latest methods of gaseous-discharge and other forms of electric lighting of the streets were, if not picturesque in the mode and method, wonderfully efficient.

Two interesting ceremonies, in connection with this modern form of electric lighting, took place in 1952 and 1953. The first of these, a major ceremony, took place at 6-10 p.m., on Friday February 29th., 1952, in a room at the George Hotel, Burslem,

For information see overleaf

1. Ornamental wall lamp with its 'naked flame' burner once to be found opposite the library in London Road, Stoke.

2. Lamp post, on a stone plinth, at the junction of Marsh Street and Trinity Street, Hanley, about 1890.
Trinity Street gained its name from Hope Holy Trinity Church which had been consecrated in 1849 and, unused as a church since March, 1940, was demolished in July, 1952, on the order of the Bishop of Lichfield. The last vicar was the Reverend T. Gilbert. In 1941 the parish was combined with that of St. John's, Hanley. Trinity Church had stood empty for several years and was used during the war as a storage room for the patterns of Messrs. Birkett's, the brass founders. Most of the beautiful stained-glass windows were completely shattered except two which were purchased by the author. One of these, The Good Shepherd, is now in Chell Church, whilst the other is incorporated in a window in the home of the author. The present Trinity Presbyterian Church in Trinity Street, Hanley, was built in 1885 on the site of the original Brunswick Chapel, built 1825 and which in 1846 was renamed Brunswick Presbyterian Church. This church stood well back from the road and partly destroyed by fire, was pulled down when the present church was erected.
An extraordinary situation existed at the old Brunswick Church which was separated from the new thoroughfare by a strip of land through which ran an old water course which had been filled in and paved over. The owner of the land blocked up the way and charged toll to all who wished to cross from 'Trinity Street' to the door of the church. This compelled the congregation to reach the chapel door by means of a narrow roadway entered from Frederick Street (Gitana Street) or via Brunswick Street. The toll, which was collected with difficulty, was eventually given up 'as it caused more annoyance than gain.' Just above the old chapel, where Bratt & Dykes building (built 1896) now stands was a square with a row of cottage houses. Where Butters' Sale Rooms stand was a small cottage, the residents of which opened and closed the gates, 'which closed that part of Marsh Street when goods were being brought up from Etruria or being taken there on the lines by locomotive power.'

3. The last lamp and post of the 1900 era prior to its removal from the Hanley to Newcastle (via Basford) Road, in June, 1957. The photograph, taken on April 2nd, 1956, shows the cottages of the village of Etruria shortly before demolition.

4. St. John's Square, Burslem in 1864. The gas lamp seen in the centre of the picture bears the inscription :- Burslem Market Place 1826. It was removed to Longport gas works where it was in use for some years. During this year (1958) it was taken down, but its future is as yet unknown. To the left of the lamp in the wood-cut illustration may be seen the entrance to Pack Horse Lane.

5. Gas lighted lantern, marked 'Post Office' situated on the west side of the 'Old Town Hall,' Burslem, about 1875. The gas pillar on the left, one of four, was erected in 1857.

6. Lamp post (dated 1826) erected at Longport gas works after its removal from St. John's Square, Burslem. See picture No. 4.

7. One of the magnificent brass gasoliers or gas chandeliers. These elegant lighting fittings, so popular in the second half of the 19th century, are now extremely rare. They were usually equipped with bats-wing burners giving a fan-shaped flame surrounded by round opalescent globes. Converted to electric light this fine old gasolier from Bradwell Lodge, Porthill is now in the author's possession.

when the Lord Mayor of the City of Stoke-on-Trent, Alderman Horace Barks, O.B.E., pressed a switch which inaugurated the new high power mercury-vapour lighting system over a distance of some twelve miles between the city boundaries at Blythe Bridge in the south and Golden Hill in the north. The new lamps were mounted at the top of reinforced concrete columns. The columns were made by moulds, containing the concrete spinning at high speed, which compacts the mixture, making the final product more resistant to the weather. These columns, the design of which was approved by the Royal Fine Arts Commission, were made by the Stanton Iron Works Company Limited, and are twenty-five feet high, carrying 400-watt General Electric Company mercury-vapour lamps. The 283 standards and lamps replaced eight different kinds of lighting, from the ten feet high, old type gas lamp, with its three mantles, to various kinds of gas lamps, some twenty feet high, with twelve mantles, and electric street lamps, varying from 300 to 600 watts output. The new lamps covered the entire distance of the main route between Golden Hill and Blythe Bridge. The second event, was the switching on, by the Lord Mayor, Alderman A. E. Bennett, of a £9,000 scheme covering a three and a half mile stretch of High Lane, which started by the Deep Pit, in Town Road, Hanley, and culminated at Pittshill. The ceremony took place at 4-26 p.m., on December 2nd., 1953. It operated 120 ' staggered ' mercury-vapour, high-power, discharge lamps, situated at forty yard intervals, which made the light from the gas lamps look pale and wan by comparison. It also brought the number of class A lamps, illuminating twenty-seven miles of the city's streets, to 1,166 almost all of which had been installed since the last war.

Returning to 1906, one finds that the gas mantle was not only a great advance, but was at least equal to the electric light and so much more economical. Gas and electricity were to compete and continue to do so to this day, even under nationalisation, although one suspects that the competition is more a matter of individual pride than of national pride. Possibly at this period in the progressive battle between gas and electricity, whose success for a particular moment often depended on a new mantle or electric bulb, electricity temporarily had an advantage for in 1907 the interior of the Town Hall, in Fountain Square, Hanley, and in 1910 the Town Hall clock and that of Shelton Church, were lit by electricity. These were a source of wonder and fascination for the inhabitants of Hanley and Shelton !

After the Federation of the six towns on March 31st, 1910, which resulted in their becoming the Federated County Borough of Stoke-on-Trent, electricity was virtually brought under a common management on September 1st., 1910. Towards the end of 1911 work began on a central power house, which was opened on April 10th., 1913, by the Chairman of the Electricity Supply Committee, (Alderman H. Leese). From April 1st., 1914, the four electricity undertakings were combined and became one. In 1919 electricity was supplied in large amounts to Newcastle-under-Lyme. In 1923 the general supply of electricity to Fenton was switched on, whilst two years later the first showrooms in Kingsway, Stoke, were opened.

March 3rd, 1927, saw the first pottery kiln " fired " by electricity. In June, 1929, the inaugural meeting of the North West Midland's Joint Electricity Authority took place and on April 1st, 1930, the Central Power House was transferred officially to the North West Midlands Joint Electricity Authority, which from then undertook

the generating of electricity in the disrict. March 1938, saw the change-over from direct to alternating current (50 cycles) completed in Stoke-on-Trent, whilst change overs took place in Longton, Burslem and Tunstall later in the same year. In 1939, extension offices and a lecture theatre were opened off Kingsway, Stoke, during March of that year.

In 1894, about one fifth of a million units was sold but by 1938 this had risen to over one hundred million units. By 1944, the Stoke-on-Trent Corporation was receiving a bulk supply of electricity from the North West Midlands Joint Electricity Authority, at 33,000 volts. At Burslem and Stoke this was transformed to supply 6,600 volts and carried to 189 sub-stations, to which it was transformed to a suitable voltage. From this the main pressure for nearly all consumers was taken over a network of mains over 450 miles in length. Electricity, like gas, is in considerable demand for the heating of electric kilns for firing bone china and earthenware and it is said that over fifty per cent of the decorated ware produced in the Potteries is fired in electric kilns. Electricity is in one aspect somewhat superior to gas, as many of the colours used are very easily damaged by fumes and combustion gases. Such kilns are also used to a small extent for firing glost sanitary ware. Today (January 1958) there are at least 110 continuous electrically fired kilns and over 300 intermittent electrically fired kilns in use, the first of which came into operation as early as 1927. Electricity for this purpose is efficient and economic and with gas supercedes the old bottle oven kilns with a marked absence of loss through dirt, smoke and fumes and resultant saving in labour occasioned by precise firing and less handling and attention to the ware by employees.

The Golden Jubilee of Electricity Supply in Stoke-on-Trent, was celebrated in July 1944, recording progress in heating and lighting, which today is watched over by the Stoke-on-Trent Group of the Illuminating Engineering Society (formed in 1909) whilst the great new power station at Meaford—the first post-war power station in the country to be brought into commercial operation—makes a fascinating comparison with the " weird and wonderful " machines at the old Hanley Electricity Works.

CHAPTER 5.

Water and Sewerage in the Potteries

Such a title may sound in itself uninteresting and gives a heading to a chapter that the reader might feel inclined to by-pass. The history of these two vital services, from their inception in the towns of Stoke-on-Trent, helps immensely in the understanding of the chapters to come and forms an important part in the history of the city.

Very early water supplies in the district were literally where the dweller found them. They came from the heavens in a state of purity, governed by the atmosphere through which the rains came, which even in the early years of the Pottery Towns was none too pure. Natural springs and later wells, which will be recorded in this chapter, were excellent. Early supplies, some of which survive to this day, were only made obsolete by the vast demands of a great and growing population. The Buccleugh Health of Towns Commission, of 1844, gives details of the state of the water supply in the six towns and districts at that period.

The towns of the Potteries, in particular Burslem, Hanley and Longton, were perhaps better off in some degree for their water supply than, say, towns in the flat Cheshire area. Owing to the heavily smoke-laden sky, the rain water when it strikes the earth of the Potteries is rather heavily contaminated by carbon and sulphurous matter. Water generally was of a poor quality, with the exception of Longton, where excellent water was obtained from reservoirs owned by the Duke of Sutherland. The water was said to be soft and of an excellent quality and came from a bed of siliceous gravel and sand, about a mile out of the town and sufficiently distant not to be contaminated by the smoke. It was conveyed to the more opulent houses through wood pipes and later, iron mains and lead pipes below the surface of the ground.

In 1844, there were more than two thousand houses in Longton and the immediate neighbourhood, and the water was supplied in unlimited quantities, at a rate of between 7/- to 10/- per annum, according to the property. Water was constantly on tap, with the exception of a few areas in the town, where it was supplied at stated times of the day.

In the case of Burslem, Tunstall, Stoke and in particular Hanley, the best water was sold from water carts at a half-penny per bucket, and continued so in the case of Hanley, until at least 1850. The water was obtained from Washerwall, in addition to water from the Woodwall Well, (one of two wells in Well Street) Botteslow Well and Bryans Well. Although not pure by today's standards, it was clean enough for drinking, but was obtainable in limited quantities only. On arrival in the poorer streets, the inhabitants would rush out with buckets and ewers to buy the precious liquid before the barrels on the cart became empty. In Hanley some of the better homes were supplied by pipes, but the water was of a very indifferent quality, containing about thirty grains of carbonate and sulphate of lime to the quart. It was used mainly for domestic purposes and came from an old colliery in the adjoining valley and was,

"forced by force-pump to a reservoir on the top of the Hill," (Hanley). Filters were used in the houses of the more opulent residents, which improved matters to some extent, but in the case of the poorer classes of the community these were seldom used. In Hanley and Shelton this supply was available on three days of the week. Burslem was somewhat better off in this respect, water being available day and night. It cost more and the rate was ten shillings for small houses. Larger ones were charged in proportion. Burslem, in addition to having its own reservoir, obtained water from that at Hanley, two miles distant, which quelled the complaints during the hot summer months.

All the towns of the Potteries had small springs in addition from which residents would get water. There were 4,663 houses in Hanley and Shelton at this period (1844) and 3,013 in Burslem. Piped water in Hanley cost twelve shillings per annum, for small houses and sixteen to twenty-one shillings for the larger, there being no limitation while the water was laid on. About 1,200 houses in Hanley were supplied with water and in some streets the landlord would place one tap for the use of several houses and make a small charge to each tenant. This was brought about by the fact that much difficulty was experienced in the collecting of these water rents from the tenants by the lessees of the water, that is was only supplied to the poorer houses if the landlord would pay for it. One can imagine the result; the people in this property would depend on the water cart for drinking purposes, whilst it is on record that the washing of dishes, clothes and boiling of vegetables was by water obtained, more often than not, from ponds, frequently stagnant, and there were many of them and from small pools, which were highly prized after a shower of rain, and even from the canal. Needless to say, the taps, placed at intervals were greatly abused and used by many who refused to pay for their use.

In nearby Newcastle, the town claimed to have a great command of good water from its water works, its pumps, and wells, for all general purposes. The water came from springs in the New Red Sandstone formation and was excellent though slightly hard. The water from the water works was pumped into a reservoir, situated in the higher part of the town, by a forcing pump, attached to a steam-engine. It was then distributed to the various dwellings by gravity through both cast metal and wooden pipes. Of the 2,039 houses, 215 had their own taps. There were also 14 stand pipes, each serving about 12 houses, in various streets for the accommodation of the poor, who paid one penny each per week. The poor were also supplied by pumps from open shallow wells. There were also 17 "good public pumps in the town."

In these early years of water supply privately-owned water works undertook the supply since the towns apparently possessed no suitable public body prepared to deal with this vital public necessity. We therefore find that water reservoirs for Longton (Lane End) belonged to the enterprising Duke of Sutherland. In Burslem, water was pumped by Mr. Samuel Alcock to a reservoir at the Hill Top Pottery into which water from the Bycars Mill was added.

In Hanley, Mr. John Smith's reservoir, which fronted on the north side of Market Street, supplied much of the water. This was obtained as stated previously, from an "old coal works in the adjoining valley." This colliery, referred to by residents as the Hanley Water Works, was owned by Mr. Smith, and leased to Mr. William Palmer.

For information see overleaf

1. Old gas lamps outside the west front of Burslem 'Old Town Hall.' about 1880. The Town Hall was lighted on the outside by a large number of gas bats-wing burners in cup-like glass globes of many colours on the occasion of Queen Victoria's Diamond Jubilee in 1897. In 1902 it was illuminated by electricity with several thousand bulbs for the Coronation of King Edward VII. Arnold Bennett writing in March, 1909, concerning the new Gas Showroom situated in the "Shambles," Meat Market at Burslem, and immediately facing the present post office said: "Part of the east facade has been taken out and a shop front in the worst modern style, substituted. I learn that municipal gas appl'ances are to be displayed in the shop front . . I formally protest against an act which seems to me monstrous . . The "Shambles" is one of the most dignified public buildings in the Potteries . . . It ought to rank as an ancient monument—it is something fine and beautiful and traditional, and in its way perfect . . . They (the municipality) wanted a shop (to show off gas) and they took the "Shambles" and spoilt it, from sheer ignorance." Mr. Bennett suggested also that: "The most distinguished building in Burslem, . . . probably unsurpassed by any in the whole district, the Hill Pottery at the top of the Sytch . . . be acquired by the town and so saved. . . . However, who cares? Public opinion in the Potteries shows the same disdainful indifference to external beauty and ugliness." Who indeed! Today (1960) the "Shambles" is gone, and the Hill Top Pottery in the final stage of decay.

2. Street and wall gas lamps in the Strand, Longton, about 1900. From a photograph by Mr. W. J. B. Blake of Longton.

3. Modern gas lantern in Frederic Street (now Gitana Street), Hanley, (March, 1950).

4. A rare picture of Piccadilly, Hanley, about the turn of the 19th century. The gas lamps had bats-wing burners.

It was situated on the canal side, between Fourdrinier's Ivy House, Paper Mill, and Dresden Mill.

Fortunate people living near the first gas works at Etruria, obtained a free supply of clear water from an iron pipe, which ran continuously. At last, even this ceased to flow, (somewhere about 1875) but at that date, difficulties had altogether ceased, and the towns were well supplied, and had been for some years.

Today, one rarely sees in the back yards of houses, the old fashioned water butts in which the residents caught the precious rain water, which for many domestic purposes can hardly be bettered to this day. Tunstall was not mentioned in the Buccleugh report, neither were Stoke nor Fenton, and it would seem that worse conditions prevailed there. In Stoke there was no general supply, the town having only one public well and two public pumps ! Fenton fared even worse—" This place may be said to have been almost destitute of water, excepting such as falls from the heavens and in summer the want is most severe; the manufacturers have frequently to prevent parties from carrying away the condensing water for use." This interesting statement was made by Mr. Liddle Elliot, the Engineer to the Water Works Company, in 1850, before the General Board of Health. Mr. William Scarratt, for many years a gas accounts collector for the Etruria Gas Works, and a man who had a deep love for the towns of the Potteries, and in particular the northern districts, writes in his fascinating book, *Old Times in the Potteries,* concerning water.

He tells the story of an old lady. " She was living in Mill Street, (now Etruria Road) in 1845, and, requiring a canful of water one Saturday night, went to the top of the street and met with a man hawking his bucketful of the precious element. She asked him to sell her a pennyworth, and got a refusal—all the little he had left he had promised. She tried to buy a halfpenny worth—this was also denied her. And at last, after some persuasion, she got a farthing's worth ! And her husband thereby had a cup of tea on the Sunday morning." Mr. Scarratt also said. " Potatoes were often boiled in the ' carrey ' water that lay in holes in the adjacent fields—the yellowish fluid possibly having been pumped out of the ironstone mines."

Previous to 1844, the period of the Buccleugh report, conditions of obtaining water were of course more primitive and in those long hot summers water was a major problem to be faced by all. Such a summer was that of 1835, when springs and wells ran dry in the district. Tunstall suffered very severely, having to rely wholly on a town pump, frequently out of order, and on several springs, to such an extent that good intentioned people set out to devise means of improving the situation. Unfortunately these efforts came to nought. In Burslem the situation was considerably better and the manufactories of S. Alcock and Company and of Wood and Sons raised, by the aid of steam engines, water for use in their pottery works which helped considerably, but most of this was of course for their own use.

Ward, in his History of the Borough of Stoke-upon-Trent (1842), records that: " Several projects for effecting the object have, at different times, been started, and in the year 1832, W. Walsh, an enterprising individualist, commenced upon a plan for furnishing the needful demand from an estate of John Bennett, Esq., near the summit of Sneyd Hamlet, where a large flow of excellent water was raised by engine power." . . . "A reservoir was constructed by the projector, near the blue-stone turnpike, and

main-pipes laid down from it to the town, nearly a mile in extent; but he was unable to find funds, or friends, to accomplish his design, and his death, in 1836, terminated for the present, a scheme which certainly deserved more encouragement than it received, and will probably hereafter prove to be the most practicable mode of effecting so needful a public object."

Earlier in the year 1820, the Water Works of Mr. John Smith, was started next to Fourdriniers Paper Mill, at the Ivy House, Hanley, where a 48 horse-power engine pumped water from a thirty-six yards deep well. A force pump conveyed this water 138 feet, to a reservoir on Windmill Hill, Hanley, on which the Observatory Inn now stands. Here the water was filtered before it left for Hanley and Shelton and Burslem by pipe. Despite this, water was very short during the summer months and had to be supplemented by water from the Wood-Wall Well, (Well in the Wood), at the lower end of Well Street, Hanley, then a newly built street. This well was furnished with a pump in 1841, this being necessary to lift the diminished supply caused by the tapping of its hidden springs in other directions, due to the great demand for water. Water was also brought from Washer-Wall-Well, or Washer Well. This copious spring was situated on the hill side, above Ash Hall, and the water was of exceptional quality. The name ' Wall ' was often applied to many wells in past days and meant well, spring, or source of water. There were of course other springs and wells in each of the towns, all supplying a greater or lesser volume of water of varying purity. The names of these springs and their location, often survived, and in Etruria we hear of the Spring in the Spring Fields, at the foot of what were once the Etruria Woods. Here the water was said to have curative properties for the eyes. At the south end of Church Street, Hanley (now Hill Church Street) and near to the church, was the Spring Meadow. It covered a considerable portion of ground on either side of the street, with a frontage to High Street (Town Road). One feels that the spring, which causes seepage in cellars of houses nearby, may still flow. It caused considerable difficulties with water when the new Sentinel offices and Odeon cinema were built. Another spring was to be found in Swan Meadow, which took its name from the old Swan Inn, on Hanley Green (Market Square). The meadow stretched down to the present Stafford Street and towards Bryan Street. There was also Bryans Well, excavated about the year 1835, in Bryans Wood, where Bryan Street is today. At the Botteslow Well, which also had a reputation for strength giving, it was customary for parents in the first half of the ninteenth century to take their children to bathe in the water. This well, was fed by a spring which rose on a farm near to Botteslow Mill, Hanley. The ancient custom of bathing the children was carried out annually in the early morning during the first ten days in the month of May. It was the practice of women, in the humble walks of life, to bring their children to the spring, which was said to have " Miraculously sanative powers over the ailments of childhood." To take advantage of the waters, the child was dipped three times, not only as a preventative against childish ills, but also as a cure. The practice continued until at least 1861 and probably for many years more. Perhaps faith and circumstance played an important part in these " cures." Undoubtedly the chemical properties of the water were somewhat unusual for it was said that the water in the well had never been known to freeze—or to fail. Owing to damage done to the grass of the meadow by a constant stream of

people requiring water from the well, which was in the centre of the field, the owner conveyed the water through pipes to a small tank lined with white glazed tiles, and erected close to the rustic footpath leading from Hanley to Longton. The water flowed into this tank at the rate of ten gallons per minute, and the surplus water ran into the nearby River Trent. In addition a neat metal drinking cup was attached by a chain to the brickwork through which the water pipe projected. Thus was found thirst quenching charity for all who travelled the lonely and not inconsiderable distance between Hanley and Lane End.

Burslem also had its wells and at times the situation here was very acute. A Chairman of the Potteries Waterworks, Mr. George Baker, had recalled that at Burslem there was a well near to St. John's churchyard. " Here people used to go at three and four o'clock in the morning to wait until a bucketful had oozed out." At the Grange Farm, Cobridge, there was another well, which was considered good water at that time, but " there was nothing but scrambling and fighting if two or three people wanted to get a canful of it at the same time." Mr. Baker also recalled that one manufacturer had told him that, it cost him a guinea a day to draw water for his works, and that it was difficult to get it even at that price. At the time these remarks were made in 1863, the Potteries Waterworks Company was in a position to supply not less than 21 gallons of water per day for every man, woman and child throughout the district.

At Tunstall there were ' Lady's Well,' ' Sugar Well ' and ' Round Well.' The water from these was considered pure, but uncertain in supply and it is recorded that in summer people would often sit up all night to obtain a supply, having to fetch and pay for a canful for breakfast. The Round Well, appears to have been a favourite of the people of Tunstall and in January 1857, Mr. Hales, of the local Board of Health, reassured the inhabitants that, Mr. Peake had stated he never had any wish to deprive the inhabitants of the use of the well, and that they could continue to have the benefit of it. Mr. Peake, not only restored the well to the use of the people, but fenced in the property, at his own expense. This well, and the others in Tunstall, were of great importance to the town, especially as water provided by the Potteries Waterworks Company was only turned on at certain periods of the day. The Board of Health decided that it should carefully preserve all the public wells it could, and thus render the town as independent as possible of the Leek water.

A little further afield than Tunstall, at such places as Newchapel and Packmoor, water was a problem that increased with the passing of the years and at least as late as 1919, extraordinary scenes were witnessed in the search for water. The village of Packmoor which at that date contained about eight hundred people, many of whom were without a water supply for days and sometimes weeks. Indeed houses had been known to be without water for twenty-six weeks at a time, and even in the wet months of winter and early spring, women could be seen in a queue waiting at a public tap to get a little water for household purposes. People then living at the top of Thomas Street, Mellor Street and Samuel Street had to be extremely careful of any little quantity of water they could secure and hoard and wash in the same water half a dozen times. At this period, 1919, Packmoor obtained its water from a source on Mowcop,

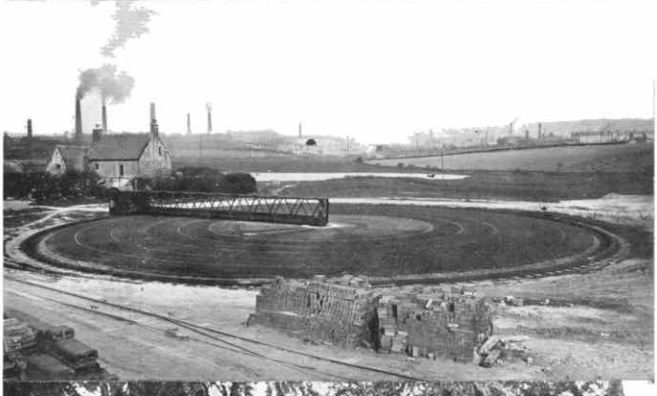
which was tapped on the way by Kidsgrove, resulting in an insufficient quantity reaching Packmoor. Some years previously, unsuccessful efforts had been made to get the Potteries Waterworks Company's mains laid on.

In short, the source of the water supply in the six towns, at least until 1850, was in many ways picturesque but rather inadequate, and one of the earliest references to the water supply in the district is contained in a local newspaper paragraph in July 1826. The editor declared.: "We have received several complaints this week, respecting the non supply of water in Hanley and Burslem. At the latter place, in particular, the want was severely felt, as most persons wished to perform the necessary ablutions in their houses preparatory to the Wakes. When this event was notified to Enoch Wood Esq., he kindly offered the gratuitous use of the fountain in his manufactory to the public. This is what we call real philanthrophy and public spirit." (Mr. Wood, was also at one period appointed Chief Constable of Burslem).

To trace the quest for water to its source, other than already related, we must proceed to 22, Lamb Street, Hanley, where the offices of the newly formed Waterworks Company were housed, and whose Parliamentary Bill, received Royal Assent on July 9th., 1847. These offices were housed until 1858, in dignified premises in Lamb Street. At this time, Lamb Street, Hanley, was still a comparatively quiet and dignified street, containing, among other buildings, the Lamb Inn and Mr. Michael Huntbach's gallery. Here the company remained until 1858, when they moved to 37, Albion Street, Hanley, which was built in that year, and into which the company removed in November. The offices now include 39, Albion Street, Hanley, which was acquired from the Hanley Savings Bank Committee in December, 1889. The old premises in Lamb Street were then occupied by the bank of Lloyds, Barnetts & Bosanquets Limited, and later by Mr. F. A. Buck, a well known jeweller. Mr. C. V. Brown, in his centenary booklet (1949) describes the very interesting history of the undertaking, which under skilled guidance, has grown immeasurably to the ever increasing advantage of the growing population of the pottery towns. "There is nothing in the records of the Water Works Company," says Mr. Brown," to link its formation with the Buccleugh Commissioners' report, issued in 1844, but it is surely more than a coincidence that the opening pages of the Company's first minute book, record an account of a meeting held in the Town Hall, Hanley (on the site of the present Lloyds Bank) on the 23rd., October 1845." This was a meeting of the subscribers to a fund for obtaining a survey and report by a competent engineer, " as to the capability of the district to afford sufficient supply of water for the Townships of Hanley and Shelton and such other districts of the Staffordshire Potteries, as was practicable."

At this first meeting, at which many prominent men of the area were present, Mr. Liddle Elliot, a competent engineer, was appointed to make a survey. At a meeting, held on November 26th., 1845, the Chief Bailiffs of Hanley, Shelton, Burslem, Fenton and Stoke, took a friendly interest and gave approval on behalf of their towns to a project to provide a better supply of water, whilst in November 1846, Newcastle-under-Lyme signified its favourable interest in the formation of the Company."

In August, 1846, a public meeting was held, with Mr. John Wood in the chair, when water from the springs and St. Cæna's Well at Wall Grange, (part of the Duke



For information see overleaf

Top. The ancient Trent Hay Farm, possibly built about 1530 on land on which 25 acres of sewage works were later laid out. The photograph was taken about the time work had started near the Leek Road.

Centre. A view of the early sewage works at Trent Hay Farm taken about 1898. It was an undertaking which cost the Hanley Corporation £62,000 for main sewers, intercepting sewers and storm overflows, sewage works and land. Started on 9 acres of land the original works increased to 23 acres with a total length of 23 miles of sewers.

Bottom. Trentham Hall, from a photographic study by the late Mr. J. W. Blake of Longton. Started in 1834 and completed in 1846 the Hall cost about £150,000 to build. Its demolition, in 1911, was in no small measure brought about by the pollution of the River Trent by the sewage from the Potteries and the departure of the Sutherland family.

of Sutherland's estate) was tasted and found to be not only excellent, but much superior to the existing supply. The record states that Mr. Bates, (late of Shelton) brought forward a proposal to supply the district, from hills on the far side of Leek, without a steam engine to raise the water. Whilst this proposition was not entertained at the time the Water Board went to Parliament, in 1849, to obtain powers for a supply of water similar to that which may have been in the mind of Mr. Bates. Proceeding with the Wall Grange scheme, the committee met on September 30th., 1846, to form a company, with the Duke of Sutherland as Patron. The first directors of the Water Works Company, were William Davenport, Chairman, who resided at Maer Hall, Mr. John Ridgway, Deputy Chairman, of Cauldon House (which although in a state of decay was used in connection with air raid precautions during World War II and afterwards demolished). Mr. Thomas Fenton, of Stoke Lodge, Mr. Samuel Alcock of Burslem (whose 'Hill Top' manufactory is still to be seen) Mr. Timothy Dimmock of Shelton (whose huge pottery manufactory stood on the site of the present Essoldo cinema), Mr. Charles Alkins (of Broomfield House, Etruria Vale), Mr. Herbert Minton, of Longfield Cottage, Hartshill (of which only the low massive stone gate posts still stand), Mr. John Alcock, of Cobridge, Mr. William Baker, of Fenton, Mr. John Pratt, of Lanedelph, Mr. Hugh Henshall Williamson, of Greenway Bank, Mr. Nicholas Price Wood, of Bignall Hill and Mr. Thomas Phillips, of Newcastle with Mr. Liddle Elliot as engineer and Mr. Charles Baines as secretary. The company had a capital of £60,000 and work began to enable certain springs which discharged into the River Churnet, at Wall Grange, to be collected and pumped to a supply reservoir of about two acres surface and 20 feet deep. The reservoir was to be constructed on the summit of the hill called Ladder Edge, near Leek, which is about three hundred feet above the level of the springs. Thence it was to be conveyed by gravity to the Birches Head Reservoir, in the parish of Burslem, 80 feet lower than the Ladderedge Reservoir. From here water went by main to Hanley, Stoke, Burslem, Tunstall, Fenton, Trentham and Newcastle. To compensate the River Churnet for the abstraction of these springs, a storage tank reservoir was to be built in the Deep Hayes Valley. A dramatic incident is recorded by Mr. Brown, in his story of the undertaking, when the Cornish Beam Steam Pumping Engine, made for the Wall Grange station by Messrs. Sandy Vivian of Hale, Cornwall, was lost when the vessel carrying it was sunk in the River Mersey. A new engine, named "The Stafford," had to be built to enable the works to be in operation by September 1849. By the first week of October 1849, water was flowing into the towns of the Potteries from the new water works at Wall Grange. In Burslem, the 'Mother Town,' the bells of St. John's Church, were ringing merrily most of the day on Tuesday, and perhaps they have never proclaimed really better news than they did on that occasion. On the Tuesday morning, one of the main pipes, conveying the water from the Wall Grange springs, was tapped in St. John's Square, "and a copious supply of the pure element gushed out and was permitted to flow for a considerable time." Tunstall also had a sample of the water and expressed no less satisfaction that their neighbours at the great addition to their comforts which awaited them. It was also declared, at this time, October 1849, that the pipes to the houses in Hanley, Burslem and Tunstall, would soon be laid.

By an Act, in 1849, Longton took part in the scheme and a lease was obtained from

the Duke of Sutherland for his water works at Meir. In addition they obtained water from the Normacot springs. At a meeting held on September 21st., 1849, the engineer gave a report. " The Longton works are all complete and in full operation, and the pipe way has been extended to Fenton and Stoke and one thousand premises laid on. Also Burslem and Tunstall will be supplied in the very near future, and Hanley, Shelton and Newcastle in the spring of 1850."

A banquet to the directors of the new water works company, intended to celebrate the opening of the works throughout the district, was given in Stoke-upon-Trent on Thursday November 15th., 1849. The dinner was held in the board room of the station at Stoke, the food being brought over from the 'Railway Hotel' (now the North Stafford Hotel) adjacent. One hundred and twenty people were present in the room, which had recently been enlarged. The head party were seated on a dais in the large bay window.

Appreciation was expressed on the help given by the Duke of Sutherland on whose ground both the Wall Grange and Meir springs were located. The Duke had liberally placed them at the disposal of the company. The President, (Mr. John Ashford Wise) recalled that the quantity of water available to the neighbourhood had been diminishing for many years, due to mining operations, which resulted in the springs dwindling away and the wells becoming dry, and what was left was contaminated and unfit for consumption. Indeed, at Norton, such was the scarcity of water that it had to be brought from a considerable distance in carts and, although not very pure, was retailed out almost like milk. Health had suffered. In 1832 cholera was common in Fenton, there being a scarcity of water, but now that there was more water cholera had not shown itself. In addition new fire plugs had been fitted in the principal thoroughfares, as a protection against fire. It was also stated at the banquet, that Longton's people had not taken very kindly to the use of the spring at the Meir being handed over to the company by the generous Duke of Sutherland, and that they had not accepted the shares in the company that were reserved for them. It was hoped that they would soon see the matter in a different light and realize the benefit to the 100,000 souls of the Potteries towns. A great many speeches were made and toasts drunk at the dinner.

After the opening, Mr. Smith's works in Hanley was then closed down and he was compensated by the purchase of a portion of his mains at a cost of £8,000.

At this early period in the history of the undertaking, it is recorded that the Wall Grange springs produced 1,500,000 gallons of water a day and the Meir and Normacot springs 750,000 gallons per day making a total of 2,250,000 gallons per day. It had apparently been the intention of the company to confine their supplies of water to the six towns, but the earnest demands of outlying districts and villages were sympathetically met by the Board. The centenary record shows that so keen was the interest taken in the new company that Goldenhill and Kidsgrove urged the company to apply for further parliamentary powers, to enable them to gain a supply of water and an Act was passed, in 1853, which consolidated and amended the Acts of 1847 & 1849. This entitled the company to charge 40% in excess of the usual annual charge to meet the additional expense of pumping the water. Steam pumping apparatus was installed on a site in High Street, Tunstall and water was pumped to a temporary reservoir at Goldenhill, from whence it was conveyed by gravity to Kidsgrove.

Despite the erection of the new pumping apparatus in Tunstall—Tunstall was not getting the water ! In August 1856, an extraordinary meeting of the Tunstall Local Board of Health took place and a committee was appointed to confer with Mr. Elliot, the engineer to the water works company, on the deficient supply of water to the town. Want of pressure, owing to the elevation of such streets as King Street and Hobbs Croft, seemed to have been the cause. These streets were not much below the reservoir at Birches Head, the fall about ten feet per mile. Until the new large compensation reservoir was completed, the fault could not be remedied, but an undertaking was given by the engineer to give these streets water for six hours per day by making an alteration in the main supply. Mr. Elliot stated that they had plenty of water and were supplying to the entire district covered by their mains at a rate of 23½ gallons of water per head per day. Water was taken off at night—a serious danger in the event of fire. It was suggested that the police, in conjunction with the ' turncock man,' would turn on the water in an emergency occasioned by fire. It was explained that, at that time it was impossible to keep the water on all the time as the Act of Parliament gave power to take only so many gallons of water per day from streams, so as not to injure the mill owners. At Burslem, a fire at Mr. Hughes's factory had done much greater damage due to the water not being on in the mains. The turning off of the water supply in those early years was not peculiar to Tunstall and two years previously, in 1854, a resident of St. Ann Street complained that, " none is to be had from an early hour in the morning, surely the water company can devise a remedy ? The bellman is sent round informing inhabitants that the water is going to be turned off for a limited period, desiring them at the same time to prepare for such an emergency."

The Act of 1853, and a later Act in 1861, permitted the company to increase the share capital to £140,000 and its borrowing powers to £38,750. The 1861 Act also gave the company power to obtain a further quantity up to 2,500,000 gallons a day, from the Wall Grange spring on condition that they construct and maintain additional storage reservoirs. This power was excercised to the extent of obtaining 2,100,000 gallons a day, by the construction of an additional reservoir, about the year 1858, at Tittesworth, on the River Churnet. The Tittesworth reservoir was in place of an additional compensation reservoir, authorised in 1853, to be constructed in the same valley as the Deep Hayes reservoir.

Referring to the new Tittesworth reservoir in the annual report of the company, in May 1857, the chairman, Mr. John Ridgway, said that the works was nearing completion, which would result in an enlarged supply of water which would meet all demands of the mill owners, and would eventually relieve the company from all future payments for compensation. It was also stated in the report that there were at that period, upwards of 86 miles of mains through which 2,250,000 gallons of water were pumped daily to 19,809 houses, which contained a population of 100,000. This was equal to 22½ gallons per head per day at an average charge of 8/7¾ per house, which was not quite 2d. per week.

The announcement of two founder members of the company was made at the meeting. They were Mr. William Davenport and Mr. Hugh Henshall Williamson, who were extremely well known in the district. In this same year the Sutherland reservoir, at

Longton, was covered in. This work was made necessary by the rapid growth of vegetation in it and the need for frequent cleansing, causing a great loss of water. The company was progressing despite criticisms and complaints of lack of water and occasional impure water. In addition, the company generously supplied the North Staffordshire Infirmary, Sunday and Charity Schools and Almshouses, with water free of charge. The demand for water was increasing year by year and was used for various purposes. In May 1863, we find the Burslem Local Board of Health reporting on the cost of street watering. At this time, the directors of the water works had agreed to reduce the charge for watering the 5¾ miles of main streets from £20 to £12 per mile, or to give the option of taking water by measure, at 7d., per 1,000 gallons, for the summer, based on the streets needing watering 100 days per annum. On one occasion the three carts had used 3,000 gallons a day in Burslem. Actually some idea of the extent of watering those dusty streets, before the days of Macadam, may be gained from the fact that from 1859 to 1863 there had been street watering at the rate of 33 days a year.

An interesting ceremony took place in the 'Stafford' engine house at the Wall Grange works on July 29th., 1863, when Mr. Sneyd of Keele Hall, unveiled a memorial bust sculptured by Mr. Noble of London, of His Grace the Duke of Sutherland, K.G., the first patron of the company.

On November 5th., 1863, with a view to improving the water supply for the higher parts of Longton and district, the chairman of the company, Mr. George Baker, turned the first sod of earth of a new works, (in addition to that already at Meir) which entailed the sinking of a twelve feet wide shaft into the Red Sandstone at the Meir from which it was expected to obtain large quantities of up to a million and a half gallons of water per day which would be pumped to "an elevation commanding the whole district." This would enable the company to give high pressure to Normacot, Dresden, East Vale and the extension of Longton to the east in the direction of Adderley Green. In his usual generous way the Duke of Sutherland gave every assistance. Curiously the ceremony was 'blessed,' as an omen of supplies to come, by torrential rain which continued throughout the day. At one o'clock the chairman wheeled "a handsome varnished oak wheelbarrow" to the site. With an ornamental spade he filled the wheelbarrow and trundled it off to some little distance, where he emptied the contents, and "three hearty cheers were given for the Duke and Duchess" who were not present. The well was sunk and the yield, although not up to expectations, was sufficient to justify the construction of the new works and on August 1st., 1866, the Duchess of Sutherland named a new pumping engine "Cromarty" which put into operation a further scheme for water from the New Red Sandstone rocks, near to the village of Meir. This she did in nautical fashion by breaking a bottle of wine against the water engine. This Cornish Beam Steam Pumping Engine, raised the water through a pumping main to a reservoir which was built on the high ground about three quarters of a mile distant. A supply of 400,000 gallons a day appears to have been obtained from this station, but it is recorded also that it did not substantially increase the aggregate supply for the district. It was imperative therefore to find more water. After investigation, it was decided to sink a further well at Meir, and in 1868 this was carried out to the east of the existing well and of a

similar depth. Ten years later, this was deepened and pumping with a " Davy " steam pumping engine, began in 1882.

The years were passing and from this time onwards, the population of the district (then about 200,000) was increased rapidly. There were to be vast changes within the next fifty years that would alter the complete outlook of the six towns. Stockton Brook was found to be the next suitable site. A well was bored into the Millstone Grit formation and the water was pumped to Goldenhill. This plant started pumping in 1884, but it was not until 1912 that an Act of Parliament confirmed the works. The story of the company is one of ever increasing demands, mostly, we are told, by the comparatively recent innovation of water-closets and the ever increasing demands of trade. A suitable spot for further boring was the valley of Meece Brook, at a point one mile and a quarter north of Standon Bridge, railway station on the Swynnerton estate, belonging to Mr. Basil T. Fitzherbert, of Swynnerton Hall. Two boreholes, about one hundred yards apart, yielded over 1,500,000 gallons of water a day of an excellent quality and at that time flowing naturally on the surface of the ground.

In 1888 the Company obtained further Parliamentary Powers to acquire land and construct a works at Hatton; to lay mains to Hanchurch and to construct a reservoir there; and also to lay a main through Trentham and Hanford to Trent Vale. Additional capital of £180,000 was also authorised by this Act. In accordance with the terms of the agreement with Mr. Fitzherbert, and in order to provide a supply to Swynnerton Hall and village, a water tower of ornamental design in brickwork was built at Swynnerton. The Hatton water works was built in stages over a period of almost twenty years and during this time, six wells and five boreholes were sunk. The Hanchurch reservoir had a capacity of 2,866,000 gallons. The erection of two compound rotary beam steam pumping engines was completed in 1892 and a horizontal cross compound rotary steam pumping engine in 1898, whilst in 1907 a horizontal compound tandem engine completed the works. Two pumping mains were laid from the pumping station at Hanchurch reservoir and two gravitation mains, one to Trent Vale and the other to Hanley. Mr. Brown records that the population in the Potteries and Newcastle, during the hundred years 1801-1901, increased nearly tenfold, from about 28,000 to 240,000. In addition, from 1900 onwards conditions were changing rapidly. The advent of a comparative abundance of clear fresh water was changing the habits of the people. In the more opulent homes, baths were being installed, which hitherto had been regarded, not only as a luxury, but as not essential. In the poorer homes, due largely to the installation of a water tap, a greater degree of cleanliness was made possible and large tin baths, filled with hot water, mainly boiled in kettles and large saucepans, became a weekly event. The large baths varied in size and in the largest a man could recline almost full length. They were light in weight and somewhat deeper at one end. In the periods between use they usually hung in the back yard or in the scullery. Many are of course still in use, to this day, but as the housing schemes of the city are being completed, they are rapidly becoming curiosities. It will be realized, from these reasons alone, that more and more water was required and in 1912, by a further Act of Parliament, the Company obtained power to construct a pumping station at Mill Meece and another at Cresswell.

Boreholes had been sunk in 1900 and between 1903 and 1909, and in 1915 water

was pumped to the Hanchurch reservoir through a new main. Birches Head, near to Hanley, also possessed a large reservoir capable of supplying water at a strong pressure. In May 1922, the eighteen-inch water main, which supplied Cobridge and Smallthorne from this reservoir, burst and extraordinary scenes were witnessed. The burst occurred in a field on the farm of Mr. John Jinks and a large area was rapidly flooded. The water penetrated into two cottages in Chell Street, Hanley, to a depth of four feet.

Owing to the 1914-1918 war, further construction was not resumed until 1927, when two boreholes were sunk from the bottom of the second well at Mill Meece. In addition, another engine was installed which started pumping in 1928. It was decided not to proceed at that time with the construction of the Cresswell works and the powers, granted under the 1912 Act, lapsed.

As early as 1899, the local authorities had approached the committee of the water works with a view to taking it over and in 1924, the Town Councils of The Potteries, Newcastle and the then Wolstanton Urban District Council, promoted a Bill to purchase the undertaking of the Company. The House of Commons Committee, passed the Bill, but intimated that the Company had fulfilled its obligations and that the Bill was passed chiefly because " it seemed to be in keeping with the spirit of the times." In view of this pronouncement, it seemed doubtful whether the House of Lords would pass the Bill. Happily, at this juncture, Councillor W. A. Cowlishaw, secretary of Parker's Brewery, Burslem, (who had been in his early years intimately connected with the business of Mr. G. F. Paddock, solicitor of Hanley and with whom very friendly relations existed) approached Mr. Paddock, who was chairman of the Water Board, which led to an agreed scheme by which the purchase could take place and to the formation of the Water Board. This came into being on January 1st., 1925, at a purchase cost of £840,000.

Mr. R. C. Frain, engineer to the company, was reappointed together with Mr. E. B. Sharpley (clerk).

At this time, 1926, the supply of water was obtained from five pumping stations and one repumping station. The domestic rates authorised by the Act of 1922, were 9½% on the rateable value of the premises supplied, with a minimum charge of 3d. a week. The rate for supply by meter was 2/6d. per 1,000 gallons. These charges were, in effect, by 1926 7½% on rateable value, a 2½d. minimum weekly charge and for supplies by meter 11d. to 1/3d. per 1,000 gallons.

The water works at Cresswell, completed in 1932, consisted of two sets of steam driven pumping plants each comprising a direct acting vertical inverted triple expansion rotative steam engine, a deep borehole pump and a high lift pump. The water came from New Red Sandstone rocks.

The early nineteen-thirties were important years for the Water Board, which started reconstruction work at all the main pumping stations, a scheme which was brought to a standstill with the advent of war in 1939.

It is interesting to record that the original beam engines at Wall Grange were replaced by three electrically driven surface pumps in 1933, whilst in the original " Stafford " engine house which was remodelled the Davenport engine and boiler houses were demolished.

At Meir, in 1933, the Cornish beam engine, erected in 1865, and the horizontal compound tandem Davey differential engines, erected in 1882, were dismantled and replaced by two sets of electrically driven plant. Suction reservoirs were also constructed at Wall Grange and Meir works. At the Stockton Brook works in 1936, old Davey engines were replaced by electrically driven pumps and a standby diesel engine driven by a D.C. generator (with two rotary convertors to convert the electric current from A.C. to D.C.) were installed and engine house was remodelled to enclose the well. Water yield from this works started in 1886, was constant until 1916, but has gradually declined until in 1937 it fell off very considerably. It is thought that the reason for this may be due to the steeply inclined shale beds or other stratum having gradually slipped down into the crut, preventing the water from one of the grits of the Millstone Grit formation reaching the well. It was decided to sink two more boreholes near the station penetrating to a greater depth. The first of the boreholes was begun in 1946.

At Hatton water works, reconstruction work started in 1937. Here again electrically driven pumps were installed together with two diesel-driven D.C. generators. Completed in 1940 were two sets of A.C. electrically driven plant, consisting of well pumps and surface pumps operated by current from the grid. These replaced the engines erected in 1907. Owing to the war, work was not resumed until 1948, when a submersible pump was installed in the ' pilot ' well. The final stage of reconstruction was started about 1949, and included a 280,000 gallon reinforced concrete suction reservoir. At Mill Meece, electricity replaced steam for the pumps. At the Cresswell works, there had been a gradual falling off in the yield of water from one of the boreholes from almost the beginning until 1938 when it yielded little more than half that of the other. This put a considerable strain on the pumping engine over the better well. The yields were eventually brought up to the original figures and permanent borehole plant and buildings have been completed. In 1936, the engineer to the Board and the consulting geologist, Professor W. S. Boulton, investigated further possible sites for boreholes. The result was that there was little chance of finding more water in any great quantities on the northern edge of the Potteries Coalfield, where the Millstone Grit and Carboniferous Limestone formations outcrop. The Board was advised to seek further afield on the southern edge. To the south and also to the west thick deposits of Keuper Marl overlaid the water-bearing Bunter Sandstones. These marls contain, in places, beds of salt which would effect boreholes put through the Keuper beds to reach the water supplies below. It was found that the nearest Bunter Sandstone rocks were to be found in the Peckforton Hills, in Cheshire. It was at Peckforton and Tower Wood that boreholes were sunk. This site is most impressive, ideally situated in the heart of the country.

An act of Parliament of 1936-1937, provided for wells and boreholes on this site and a 2,000,000 gallon reservoir on Bulkeley Hill, from which the water would run by gravity to the 10,000,000 gallon reservoir at Coopers Green, near Audley in Staffordshire. Here a pumping station pumped water to a 2,000,000 gallon reservoir at Bignall Hill, between Newcastle and Audley and north of Chesterton. Trunk mains connect with existing trunk mains at Tunstall. Other works, for which the Board obtained power under this same Act, were at the Greatgate site, a reservoir at Heath

House; and trunk mains to connect with existing trunk mains at Draycott-in-the-Moors, through which water was to be pumped to the Meir reservoir from the Cresswell and Meir works.

In 1938, work was started at Peckforton and Tower Wood sites. Later, for use as an improved site, eighty-nine acres of land were purchased by the Board which included a large part of Bulkeley Hill. This move ensured that the site would be free from pollution, an important factor that must always be in the mind of the water engineer. Owing to World War II it had not been possible to carry on with the work at Peckforton. In 1946 work was carried out to allow a test pumping of number-one borehole for yield. In 1947 permanent work started. These works, in an advanced stage when visited in November, 1953, had already cost £1,000,000 and were expected to be completed by 1955 at an extra cost of £500,000. Completion of Tower Wood would be by 1956. It is estimated that the ultimate yield of water will be over 4,000,000 gallons a day. Some idea of the quantity of this amount can be gleaned from the fact that this yield is over a quarter of what the Board's average daily supply was in 1952. The surge main laid to the summit of Bulkeley Hill, from which a fine view of Cheshire and Staffordshire is obtained, is so placed to lessen the shocks on the sixteen miles of water mains to the Coopers Green reservoir. From this latter place water reaches the reservoir at Bignall Hill, two miles away, from whence it descends to the Pottery towns, and Newcastle and district. The Board have, at the time of writing, erected small houses for the employees and one can visualize a village growing in this pleasant if lonely setting.

Water, still in great demand throughout the Potteries, had to be found also for the University College of North Staffordshire and the eight hundred new houses connected with it and the village of Keele. Naturally all this progress has necessarily increased the price of water, but it is surely a great achievement that fine fresh water over a very large area is on tap all hours of the day and night.

The new water rates showed increases in the charges for domestic supplies from the present rate of 11% a year to 16% on net annual value. The overall increase is 37½% for domestic supplies. For metered supplies the scale for this water was 2/8d. per 1,000 gallons for the first five hundred thousand gallons in a year; 2/6d. per 1,000 gallons for the second five hundred thousand; 2/4d. a 1,000 gallons for the third five hundred thousand gallons and 2/0d. a thousand gallons for any excess over 1,500,000 gallons in a year, representing an increase of 35% for metered supplies.

Unfortunately such increase in cost must occur from time to time and at the time of writing, July 1957, the Staffordshire Potteries Water Board is applying to the Minister of Housing and Local Government for an order, the effect of which will be, among other things, to alter the maximum rate which the Board may charge for a supply of water to a scale of four shillings and sixpence in the pound on the net annual value of the premises supplied, subject to a minimum annual charge not exceeding thirty-six shillings per annum; to provide that the maximum price which the Board may charge for a supply of water by measure shall be four shillings per thousand gallons. Despite this one has to realize the many great difficulties when criticizing the cost of water and one might well compare these prices with the time when one paid a halfpenny per bucket carrying about two gallons of water (a high price by present day standards).

Most interesting work was carried out at Draycott Cross during the Second World War when increased demands were largely due to work in connection with armament factories. Two old mine shafts, sunk in 1896, at Draycott Cross were examined in 1944. In 1946, an application was made to the Minister under the Water Act 1945, to make this a permanent work of the undertaking and this was granted in 1947.

At the Shaffalong works, near Cheddleton, work started in 1949 on two old pit shafts sunk into the Lower Coal Measures. These had been originally sunk in 1906 by the Westwood Manor Coal Company. This venture had to be abandoned owing to excess of water. The works at Shaffalong, consist of pumps, filtration and iron removing plant. Mains took the water by gravitation to the nearby Wall Grange pumping station, giving a supply which was particularly useful to the Potteries during the almost rainless summer of 1949. Almost the whole of the Board's supply can be supplied from the main service reservoirs, but for some high level districts, re-pumping is necessary by means of booster pumps delivering, in most cases, into small high level service reservoirs. Such is the case at the Tunstall re-pumping station, constructed in 1854 and converted to electrically operated plant in 1923, which pumps water from Hanchurch reservoir to Goldenhill reservoir. According to the Limits of Supply Act for 1949, the area of supply includes the City of Stoke-on-Trent, the Borough of Newcastle-under-Lyme, the Urban Districts of Kidsgrove and Stone, the Rural Districts of Newcastle-under-Lyme, Stone (except parts of the Parish of Sandon), part of Leek, and the parishes of Bagnall and Norton-in-the-Moors.

By 1950, the constitution of the Board under the 1949 Act, had been altered by the addition of members to be appointed by each of the following:—Kidsgrove Urban District Council, Stone Urban District Council, Newcastle-under-Lyme Rural District Council and Stone Rural District Council. In the Board's 1949 Act, the area within the Limits of Supply is 215.9 square miles, together with areas of certain restricted rights of 52.71 square miles, making a total area of 268.61 square miles with an estimated population of 372,000. This population was exclusive of the areas to be taken over under the 1949 Act, estimated at 31,500.

The quantity of water supplied has jumped from an average daily amount, in 1849, of 1,000,000 gallons to 14,365,000 gallons by 1949, an average of 25.16 gallons per head for domestic use and 13.45 per head for trade use by meter. Such is the record for the hundred years to 1949, when the centenary of the Board was celebrated.

In 1953, the Board had twenty-one service reservoirs, two water towers and two compensation reservoirs with a total capacity of three-hundred million gallons. There are also twenty pumping stations which include fourteen sources of supply and six re-pumping stations. In 1952, an average of 15,564,000 gallons per day was supplied to a population of 409,000, with a peak consumption of 17,307,000 gallons per day. By 1970, it is estimated that the average daily consumption may be 21,500,000 gallons with a peak of 23,500,000.

Maintaining 736 miles of service and trunk mains, varying from a diameter of two inches to twenty-seven inches, is a big undertaking, because so much damage is caused by mining subsidence. In one year alone there were 893 cases of broken mains and pulled joints. In addition a plumbing and inspection department was brought into operation in 1947 to see that installations were in accordance with the bye-laws and

regulations of the Board. Inspections in 1949 exceeded 2,600. A testing station was inaugurated in 1948, where fittings were tested, inspected and stamped. Here in the first twelve months, 129,042 fittings were dealt with.

The quality of the water is carefully checked. Regular and frequent chemical and bacteriological examinations are carried out at the sources of supply and at points in the distribution system by the Board's chemists. During the year ending December 31st., 1955, the Board handled 541 bacteriological examinations and 97 chemical analyses of water all of which were reported to be " very satisfactory, clear and bright in appearance and of the highest standard of bacterial purity, indicative of pure and wholesome water suitable for the purpose of public supply."

Under the Act of 1949, the Board was empowered to obtain additional supplies of water by the enlargement of the compensation reservoirs at Deep Hayes and Tittesworth in the valley of the River Churnet.

The use of water continues to increase, partly due to the building of new houses, additional to those replaced by slum clearance, which has been going ahead for a number of years. During 1955 the work on the Cocknage (Longton) reservoir and mains were completed and plans were approved for the Bucknall reservoir and mains, whilst in October of that year, part of a 24 inch trunk main from Market Street, Longton, via Anchor Road and Dividy Road to Werrington was constructed. This main connects with the distribution mains of the new Bentilee and Ubberley housing estates, giving a supply to the higher portions of these areas. The margin between the water available from all the sources and the consumption by the public is still too small for safety. The public are still being urged to conserve water and there seems little doubt that some of the increase in the use of water is due to waste from damaged pipes and fittings.

Sewage

It is curious to think that in the days of ancient Rome, a degree of civilisation had been reached which was only to be found in England, little more than one hundred years ago. Drains, toilets, baths and a system of sewage disposal were all part of the Roman way of life.

Hygienic conditions in the Potteries could hardly be said to be any better than those of the Elizabethan era (1558-1603) and progress in the matter of sewage disposal was practically at a standstill until at least 1840. As a result of filthy living conditions the dreaded Bubonic Plague transmitted to humans by fleas from rats, was nurtured. So long as the plague-infested rat was alive it was not a source of danger, but when it died the little black fleas left the body as soon as it began to cool and the danger of them contacting human beings was very great. In 1647 this horrible disease struck at Burslem, particularly in the lower parts of the Holehouse and Hot Lane areas, where conditions of the sewers and the filth were at least as bad, if not worse, than most parts of the district. It was said to have been brought by a female Italian domestic servant who had also the care of educating the children of a Mr. Biddulph, then owner of the Grange at Cobridge. The pestilence spread to Burslem and more especially to the Hot Lane district. The terror of the Burslem people was such that they would not approach the infected areas, but left food and medicines for the victims. None

of those who died were buried in the churchyard, but were put in huge pits near to the Grange. Burslem suffered very severely from the plague and so great was the distress that an order was made for a special tax to assist the bereaved. It is recorded that the village of Burslem was nearly ruined by the dreadful calamity.

It is difficult for people today to picture living conditions at such a comparatively recent date as 1840. As the population increased, the health problem became more acute. In Hanley for example, situated on one of the highest hills in the district with many of its springs useless owing to the water seeping into the small worked out coal-pits, the use of water was so restricted that is could not be spared for washing streets, even had there been facilities for this purpose. There were no stand pipes, either for the purpose of putting out fires or washing streets and if fires did occur then they had to be subdued by water thrown from buckets from the ponds of nearby factories. The state of the back streets, courts and alley-ways may be imagined. Picture then a hot summer's day in these streets of Hanley. The gutters were clogged with all sorts of refuse. Water and slops from the houses added to this mess, while the stench from the open drains, outdoor lavatories and cesspools befouled the air. We cannot hide from ourselves these unpleasant facts or that the night air was little better owing to the nocturnal work of the night soil cart, which removed the human excretions from the closets of each house. We find that this in turn was not disposed of at a sewage works as there was no public department to deal with it, but was in most cases taken by farmers for manure, but proved poor in quality as a fertilizer. Many of these rear streets and courts were unpaved and the hard soil surface became a mass of small pools in winter whilst the refuse of the summer was swept along the gutters to the open drains which were frequently clogged. The main streets fared little better although they were drained under the Highway's Act, by circular sewers and culverts, which if clogged, were cleared by the surveyor of highways. This however appeared to be a rare occurrence and the only regular scavenger was the rain.

Owing to Hanley and Shelton being on a hill the force of the storm water was very considerable, but the tributaries of the sewers leading to the houses were too small—as were the drains of the houses—resulting in streams of flotsam and jetsam speeding along the gutters instead of through the drains. Ashes and general rubbish lay at the back of these houses, or in the grimy, ill-lit courts, until nature and the elements gradually disposed of it.

In Burslem, Tunstall, Stoke, Fenton and Longton, conditions were, in the main, much the same but in Burslem many of the houses were actually provided with dust bins. Ashes and much refuse was deposited on the outskirts of the town in a more or less orderly manner, " while liquid refuse was disposed of at the Velvet Croft."

Although dismal, this picture of the Potteries during the Industrial Revolution was surely little different from that in the majority of growing industrial areas and one does not record the details in any sense of criticism. Rather that it helps us to picture the progress of the Six Towns and their people.

Water, sewage and sanitation of the houses of the populace must surely be of first importance. The factories had to fend for themselves in these respects, often to the advantage of the people, and although conditions in the factories would be termed as shocking by the standards of today, they would in most cases be superior to the

poorer houses of the eighteen-forties.

It was to be expected that one found small, ill-ventilated houses abounding in the towns of the Potteries made filthy and disease carrying, in many cases, through ignorance mainly.

When the Buccleugh Commission was undertaken, in 1844, the towns of the Potteries stretched over a distance of some eight miles, from Tunstall to Lane End (Longton) and were of a dispersed and scattered nature, joined by narrow roads, many of which were only just beginning to be used by the community. Large tracts of waste land separated the towns, the peoples of which were very parochial. Each town was self contained and people had to look after their needs as best they could. Only in the case of Burslem, the Mother Town, do we find Hanley helping out in the question of water. Hanley was probably the cleanest and best regulated of the six towns and certainly more so than Burslem, where drainage and sewage disposal was very poor, particularly in " Old and New Rag Street, whilst in Daniels Road was a filthy open drain." Most of the small courts had " open 'privies' lavatories) filth overflowing, causing, said the people, a sad stench in summer."

The Market Place, Burslem, which in 1849 was considered some of the most valuable property in the town, was no less offensive. On the upper side there were " six front-sale shops, with only one offensive privy for them all." This lavatory, which would be on an open sump, was to be found under a building, and adjoining the kitchen of one of the houses, yet the aggregate rental of these six houses was, even at that period, £255 a year ! The majority of the privies, situated in the backyards of the squalid houses and cottages of Burslem, were actually emptied of their ' night soil ' by " carrying it in pails through the living rooms, a method so disgusting as to demand immediate remedies." Houses were very damp with open dirty drains. Near the parish church was a " filthy open mud-hole receiving sewers and filth in a populous neighbourhood, for manure."

Most of the houses had cast-iron fireplaces and ranges which burnt coal, then costing seven shillings per ton. Many of the older houses contained only two rooms, but generally they had four. The two at ground level were paved with " quarries " or bricks and in some instances only with earth. At this period, 1844, most houses contained only one family and it was said that, " there are few places in the Kingdom in which the poor have such ample house room."

Despite water and sewage difficulties the death rate through sickness was low and in Burslem health generally was considered to be of a good standard, the deaths for a year ending August 21st., 1843, were less than 2.4 per cent.

Let us turn from this brief general picture and trace in greater detail the story of sewage disposal in the Potteries with its effect on the health and lives of the ever growing population of the Six Towns and district.

It has been stated at the beginning of this chapter that the Romans had a sewer system that had only been reached in this country little more than one-hundred years ago. The year 1960, will be an important milestone in the history of the City of Stoke-on-Trent, as in that year the jubilee of the Federated Municipal Borough of Stoke-on-Trent, which came into being in 1910, will be celebrated. This book, is partly a tribute to this jubilee. The city sewer system, a vast scheme, will be an

important part of the jubilee commemoration. Let us then turn back to September, 1832, and see what the result of the unhygienic state of the Six Towns was. In that month cholera, a deadly stomach complaint, was to be found in the Potteries, almost two hundred years after the plague at Burslem. The disease, brought mainly through polluted water, caused much concern. At Burslem the Board of Health decided to establish a cholera hospital in the town, at which the medical attendant was to be paid one guinea a day ! This was by no means altogether to the liking of the rate-payers of Burslem who quibbled at the cost and declared that, " the poorer class of persons, for whom hospitals are intended, entertain much prejudice against them—that they are extremely reluctant to enter them—and, thank God, in England no law exists to force them in."

The dislike of the people of Burslem and district was not confined to hospitals and at a sanitary inquiry under the Public Health Act, held at Burslem in September 1849, the people of the hamlets of Rushton Grange, Cobridge and Abbey Hulton, showed their objection to being joined to Burslem for sanitary purposes, mostly on the grounds of the expense that would be incurred. At this time the parish of Burslem contained four divisions, namely, the township of Burslem, the hamlet of Sneyd, Abbey Hulton, or the Lordship of Abbey Hulton, and the vill of Rushton Grange. Abbey Hulton was joined to Rushton Grange for ecclesiastical purposes. Abbey Hulton was an agricultural district, having in 1841, only 101 houses, almost all of which belonged to the Sneyd family. Burslem possessed 2,379 houses, Rushton Grange, 292 and Sneyd, 242, showing an increase in house accommodation of only 0.63 per cent over the previous ten years, whilst the population had increased 26.6 per cent over that period. However by 1849, the time of the enquiry, houses had increased by 17.4 per cent and the population by 8.8 per cent. Half the houses in Burslem were rated at under £4 annual value and more than 75 per cent were under the value of £5. Abbey Hulton, it was said, did not need the water supply and that, as to sewers, it could not be applied. Regarding the drainage and sewerage of Rushton Grange, which contained the village of Cobridge, it was shown, with the aid of a map, that very little, if any, was required. The population, shown by a census in 1841, was: Rushton Grange and Cobridge 1,584; Abbey Hulton 548; Burslem 12,631 and Sneyd, 328, showing an increase over the previous ten years of 26 per cent. Mr. William Lee, the inspector conducting the enquiry said that, " I have no hesitation in saying that insufficent drainage and sewerage created an excess of deaths and shortened the duration of life."

A large proportion of the sewage of Burslem was deposited on land nearby. It was a source of considerable nuisance and Mr. Lee said that cholera could be very greatly reduced in towns where the Public Health Act was in operation. Urging the adoption of the Act, Dr. Moseley said " that they were living, as it were, upon a volcano of epidemics." Cholera, typhus and scarlatina were rampant in Burslem and each disease seemed to have its own particular streets or districts. The accumulation of filth in the streets was advantageous to these diseases and the middle and upper classes in the town of Burslem were remarkably exempt from them. Apart from living conditions such water supplies, as wells in the vicinity of St. John's churchyard at Burslem were suspect, these wells being so situated as to receive mainly top water,—from which—there was

considerable percolation from the graveyard." Fatalities from cholera and other diseases had been most prevalent in houses by the Market Place, Burslem, where the drainage and sewers were " very bad," and at Nile Street, where eight deaths from cholera took place in a very short space of time. Here filth and refuse had abounded. It is interesting to record that the first case of cholera occurred at Greenhead (near the top of the present Scotia Road) the victim being " a man of regular habits " who left a wife and seven children on the parish funds. Near their house had been an open cesspool from which the overflowing matter ran in an open drain by the door.

There had been 156 applications for surgical and other relief on account of cholera from the beginning of July to September 22nd., 1849, which had involved the parish in a cost of £250, whilst the permanent charge for widows and orphans would not be less than £300 annually, for at least seven years. It was considered however, that " the awful visitation of cholera " had abated by the end of September, 1849, only one death being reported in the town during the last week of the month. Some idea of the effect on the inhabitants may be gained from the fact that " Thursday the 27th. of September 1849, was observed in Burslem, as a day of humiliation and prayer." Every factory, shop, public-house, etc., was closed and a deep devout solemnity seemed to be observed by the majority of the inhabitants. The parish church was filled, both morning and evening, especially by the poor, and liberal collections were made on that day in most churches, in aid of the orphans and others who had suffered bereavements caused by cholera.

The inquiry, possibly brought to a head by the cholera epidemic, continued in October 1849, after Mr. W. Lee, the superintending inspector, had inspected the town of Burslem. It should be specially noted that at this date only surface drainage and sewers were the only kind to be found in the towns of the Potteries. An interesting sidelight, disclosed at the enquiry, was to the effect that the cottages of Sneyd Green often had to economise in pure water from the wells of Mr. Enoch Jackson, which they sometimes had to carry half a mile, it being greatly valued and considered very superior for making illicit whisky !

Furthermore is was said that " the indolence of the farmers ought not to be allowed to stand in the way of sanitary improvements." There was no doubt that the free liquid manure was highly valued for application to grass crops and some of this was obtained from houses in Sneyd Green. From ' privies ' at the bottom of the gardens, sewage ran in open drains upon the adjoining land. Ignorance appeared to be found where one might not expect it and a prominent earthenware manufacturer of Cobridge considered the sewage disposal of Cobridge to be quite adequate. The natural situation of Cobridge, he declared, prevented the need of sewers, as it drained itself on all sides and was far superior to Hanley where he resided. Mr. J. Pidduck, who resided at Rushton Grange, was more far-seeing and declared that there was a great want of sufficient drainage and sewers—so much so that where he resided, it was impossible to have a water closet in use. At the boundary of the townships, near the Bluebell Inn, (Waterloo Road) was an open brook, into which all the filth of the neighbourhood poured " a constant source of annoyance and stench."

Thus the wrangle for and against the Public Health Act continued and the inspector spared no effort to see all for himself and to convince the people of the advantages.

In the company of the Burslem Police Superintendent, Mr. Povey, he visited the low class lodging houses and brothels in Burslem, a most distasteful task that went on until well past midnight. He also interviewed many people, including the Reverend H. W. G. Armstrong who had resided in Burslem for three years as curate at St. John's Church and who described the great mass of the population, as in a very degraded state and remarked that he connected the low state of the morality of the working classes with their lamentable physical condition. Drunkenness, in both men and women, was the prevailing sin of the town and led to all others. He had long wished for the Public Health Act, to be in operation in Burslem, saying that " there was a great necessity for improved sewerage and drainage and water supply." In addition he drew a lamentable picture of the state of the lodging houses as being " the scenes of dissipation, the haunts of the most profligate characters, and the great receptacles for manufacturing and selling illicit whisky." The Reverend Armstrong also stated that the old part of the graveyard was little used at that date, 1849, and then only by those owning vaults. The new part, containing one acre of ground, was enclosed in 1847, land bought by the parish was much in use. The number of burials in St. John's churchyard, between January 1st., 1829 and September 27th., 1849, was 5,177 and at St. Paul's, Dale Hall, Burslem, between January 1st., 1831 and September 30th, 1849, was 2,994.

It is perhaps not out of place here to mention that just over one hundred years later, during the year 1955, the number of deaths in the city was 3,685, a death rate of 13.5 per 1,000 of the population (1,614 of these occurred in public institutions). 1,660 people were cremated in this same year. At the public mortuary, in Hinde Street, Hanley, 364 bodies were received and 285 post mortems carried out also during this year.

It might also be here mentioned that there were in Burslem, at this period (1849) two fire engines dealing with an average of two fires a year. It was a matter of accident as to whether there was a supply of water or not to be found, when a fire did occur. All such matters as these were brought to the notice of the inspector Mr. Lee, who was also told that a footpath in the principal thoroughfare between Burslem and Hanley had recently been laid at a considerable cost, which sum had to be raised by private subscription. This was mentioned as another argument in favour of the Public Health Act being put into operation. The chairman of the Board of Guardians pointed out that the Nuisance Removal Act did not give sufficient power to cope with the nuisances and he was convinced that the Health of Towns Act was the only measure calculated to give the requisite authority to Burslem. Remedies were suggested, such as earthenware drain pipes, descending from the higher parts of the town into the valleys of the two brooks which more than half surrounded the town. Along the valley-lines they should lay principal mains which would unite at the confluence of the brooks, near the canal, and then when not required for agricultural purposes, be discharged below the town. Into these pipes all the refuse of the town, capable of being carried away by suspension in water, should be drained. It was estimated that the drainage for the inhabited parts of Burslem, Sneyd, Rushton Grange and Longport could be completed as follows:—

Principal valley drains of earthenware	£1,650 0 0
Earthenware sewer drains for streets	£4,400 0 0
Drains for 3,000 houses, including courts and drains for proposed water closets or soil-pans	£5,250 0 0
	£11,300 0 0

It was also suggested that the churchyards be closed as soon as possible as burial grounds and a public cemetery be laid out.

Mr. Lee made his report to the General Board of Health and recommended, among other suggestions, that the Burslem Markets and Improvements Act contained many provisions which it was desirable should be transferred to a Local Board of Health, and that " the Lordship of Abbey Hulton, in the parish of Burslem, might safely and conveniently be left out and omitted from the district to be constituted for the purpose of the Public Health Act."

He also recommended " that the Local Board of Health, to be elected under the said Public Health Act, shall consist of fifteen persons, nine of whom shall be elected for and by the township of Burslem, three by the vill of Rushton Grange and three by the hamlet of Sneyd. Eligibility for election to the Board depended on ones being possessed of real or personal estate to the value of not less than £1,000, or who shall be so resident and rated at an annual value of not less than £30 a year. In addition, the Board would be given authority to purchase the gas works and the market and indeed all the public services of the town, other than the police, which came under the County Quarter Sessions Bench at Stafford, whilst the Burslem and Wolstanton Board of Guardians attended to the relief of the poor and sick."

The result was that in September 1850, the Public Health Act was applied to Burslem and the Local Board of Health which was to improve the sewers, drainage and general conditions in the town and district was formed.

On Wednesday, April 2nd., 1851, the second meeting of a similar enquiry took place at the Town Hall, Hanley (then on the site of the present Lloyds Bank). Here oppositions as at Burslem were encountered when the question as to whether Hanley and Shelton should come under the Public Health Act by the formation of a Local Board of Health. Out of 175 tradesmen, or middle classes, in and around the Market Place 170 were opposed to the measure. There was likewise a working-men's petition signed by more than 1,800 persons.

As aforementioned, Hanley was somewhat better off in the question of drainage and to some extent of sewers, although conditions in the Six Towns at that period may be reflected in the detailed account given in this chapter on Burslem, the ' Mother Town.' The natural position of Hanley was considered such as to cause no difficulty in drainage, for there was a fall in every direction and in 1850, the Highway Board had laid down 678 yards of sewers, 144 yards being of brick, and although it had not been possible to compel property owners to make tributary sewers, it had been found that there had not been unwillingness to carry this out and upwards of £11 had been paid to the surveyor by private owners for the construction of such sewers. It was on this kind of evidence on which they rested their case,—on the beneficial

working of the present system, finding a sixpenny rate sufficient for all purposes of improvement. The assistant surveyor for Shelton, Mr. J. Yates, pointed out that during the previous two years, the rate had been increased 2d., in the pound, and a considerable length of sewers had been completed—in fact a total of 1176 yards. Shelton Churchyard, Joiners' Square, Hope Street, William Street, Wharf Street and other places, had been drained.

Another aspect referred to by the inspector, Mr. Robert Rawlinson, was to the effect " that the Act will gain us power in Hanley, to regulate a class of houses of the lowest description—the resort of tramps and vagrants and frequenters of those places who belong to a grade almost below humanity in habits and feeling on which our present civilisation cannot continue much longer." The class he spoke of were not working men, but something very different. An example of such lodging houses were those kept in October 1852, in Chapel Fields, Hanley, (an area at the Stafford Street end of Bryan Street, now used as a car park). These houses were described by Police Superintendent Cole, as being filthy and destitute of all furniture. " One house, which consists of but one room, fourteen persons, men, women and children were found huddled together." Mr. Cole said that a more wretched place could not possibly be imagined. At this period lodging houses were legion in the district, many of them run by doubtful characters without a sense of decency, or without making any attempt to carry out their duties as lodging house keepers. At the present time, 1957, there is one registered common lodging house in the city. This is the Salvation Army Hostel for men, at Stoke, which has accommodation for 109 beds. Here inspections are regularly carried out. In 1955, nine inspections were made, and 18 contraventions of the regulations were found, but all were remedied.

A Dr. Head, who came to the Potteries in 1838, said he was shocked to find the people suffering from want of water. After three years of unaided appeal to the rich and influential, he eventually had the satisfaction of seeing the matter taken up and an improved water supply provided by the Potteries Water Works Company.

The question of sewers, so intimately linked with the proposed Local Health Board, had many facets. Mr. F. Bishop, clerk to the Market Trustees, said that the Hanley Market, was originally a private undertaking, a large number of gentlemen having obtained a lease from the then Lord of the Manor, Mr. Bagnall, on condition of making annual payments for certain specified objects. Under a subsequent Act of Parliament the Lord of the Manor granted a lease perpetually renewable to twenty-one trustees who thereby obtained the necessary powers, with the exclusive right to hold markets and levy tolls, the surplus of such tolls, after defraying the cost of the requisite convenience, to be expended in general improvements. There was then, in 1851, a mortgage on the tolls amounting to £14,300. For that the trustees were personally responsible. The tolls were let for £1,550 per annum and the lease was perpetually renewable every eighteen years on the terms and conditions on which it was originally granted. In default of that, the tolls would revert to the Lord of the Manor. The trustees were anxious for the trust to be transferred to a Local Board of Health, with the consent of the Lord of the Manor. (Nine years later, in 1860, the subject of the Hanley Market came to the notice of the Transfer of Powers Committee, when the Town Clerk, Mr. Challinor, read a letter from the solicitors of Lord Sidmouth, Lord

of the Manor, in which they said. " The subject of your letter of the 21st., Dec. last was referred to Mr. Thynne, Lord Sidmouth's land agent and receiver, who instructs us to say that so many encroachments have been made upon the rights of his Lordship as Lord of the Manor, that he entertained considerable doubts whether any further concessions should be made, but he has come to the determination to advise Lord Sidmouth to agree to the transfer of the powers and property of the Hanley Market Trustees, under the lease from his Lordship, to Thomas Taylor, Esq., and others bearing the date 28th., September, 1848, to the Councils or Corporations upon the following conditions:—A new lease to be granted to the Corporation, the fine on such grant to be £100 and £50 on every future grant, the rent in future to be £20 instead of £10 a year; and the trustees or Corporation to pay Lord Sidmouth's costs, charges and expenses." These terms were accepted on the motion of Councillor G. Ridgway !).

Mr. John Ridgway pointed out that the objects in view were the sewers and drainage of the town and said that the Commissioners of Watching and Lighting (formed in 1825, and amended in 1828, with the Commissioners replaced by a Chief Bailiff) were also prepared to relinquish their powers in favour of a Health Board and he appealed to the Highway Board to show their willingness to put off their authority and sacrifice some little feeling for the good of the town. Mr. Ridgway argued that the working of a Local Board of Health would be less costly than its opponents seemed to suppose. Opposition persisted and it was not until 1858 that Hanley had its Board of Health.

The development of the Local Boards of Health was spread over a considerable number of years and, in greater or lesser degree, in the towns of the Potteries, it was much the same as that described in Burslem and Hanley.

The Local Boards of Health did a vast amount of work in many directions, that of sewers being the concern of this chapter. One of the major improvements fostered by the Board and made possible by the Potteries Water Works Company, was the water closet, which was the basis of personal sanitation, so important to any community. The cost of the water rate prevented the major portion of houses having this convenience. The cost of water for the " lowest class " house was about 3½d. per week, in addition to the cost of the closet cistern and maintenance fees.

Slowly the conditions improved. Main sewers made of brick, 4½ inches in thickness, measured 42 inches by 32 inches in the principal ones, and in the subsidiary ones 24 inches. They were made in Burslem. They ran from the Market Place to Burslem Wharf; from the corner of Hamil Road down Waterloo Road; from Cobridge to Holehouse; from the Sytch along the High Street to Greenhead; in Dale Hall from Newport to Longport; from Pleasant Street to Bleak Hill, including Waterloo Road, with another outlet under the canal at Dale Hall. By August, 1859, the main sewer in the Sytch was completed and a main sewer laid between Wharf Street and Navigation Street at Middleport. It is interesting to note that it was recommended that all pipes used in the Burslem district for sewers were to be glazed with salt entirely.

In conjunction with more efficient sewers washing of at least the main streets was also made possible and from 1850 horse-drawn watering carts were to be seen in ever increasing numbers on the roads of the six towns. By 1853 street watering was

carried out in Burslem and the vill of Rushton Grange, the latest addition was one of Fowler and Fry's large tumbler carts, which was available for all purposes—watering in summer or removing mud in winter. Thirty of Bateman's fire plugs had been provided with stand pipes and feed hose. These were of advantage for watering or in case of fire, either as a supply to the fire engines or for separate jets.

The end of March, 1854, ushered in the formal announcement of the sewers of Tunstall, which had been decided upon by the improvment commissioners, from the plans of Mr. Dale, the town surveyor. The work was to be completed in eighteen months by a Stockport firm, at a cost of about £3,000.

Good feeling was not always shown by land owners and in May 1862, the clerk to the Tunstall Board of Health reported that Messrs. Haywood " required payment of compensation in respect of that portion of the sewer already made and completed within their lands at Brownhills." £25 per year was asked as compensation for the use of the land and this led to some dissension between members of the Board ! At this same meeting the Officer of Health gave his report, which showed that there was still much room for improvement. This gentleman, in conjunction with the inspector, had visited the pool of filthy water behind King Street, Tunstall, and close to the National Schools, in addition the piggeries in the town were visited. In some instances he declared they had " to contend with pig-headedness and defiance to the law." It was decided to extend the High Street sewer to where the nuisance was situated.

Returning to Burslem, in September 1854, one would have found the inspector making his report to the effect that 1281 tubs of night-soil had been removed from the district, being 202 tubs more than the previous year, which showed that the population was increasing and the water closet system was only slowly gaining popularity, doubtless due to the cost of the installation and maintenance. By 1863 the number of tubs of night soil removed in the Burslem district was 609, during that year.

The registered lodging houses however had improved in the town and were generally clean and well ordered, but many owners had been fined for keeping unregistered houses many of which were said to have been " miserable huts, having chaff or straw beds on the floors, with scarcely a rag on them." Nevertheless the Burslem Health Board was proud of its record in the sanitary matters affecting the health of the town.

In January, 1855, the Chief Bailiff of Burslem said that " it is most satisfactory to know that the sanitary conditions of Burslem are much better than those of Tunstall as has been clearly proved." Tunstall had at this period a far higher death rate than Burslem. Whether the Mother Town, in its traditional friendly rivalry with plucky little Tunstall (an expression now rarely heard) was really better and progressing at the rate one is lead to believe, especially in view of the fact that they had a Health Board some five years before Tunstall, is open to conjecture; for the chairman of the Board invited the Board's Inspector, Mr. Lee, " to show the Board how they might obtain funds to prosecute their system of sewerage; and to satisfy, as far as he could, those members who entertained objections to the closet system. Perhaps their bottoms got spattled as they pulled the chain ? " The inspector said, that he was not aware of any further difficulties that had arisen with the closet system, or of anything that would effect the plans for sewers adopted by them and which had received

the sanction of the General Board of Health. The water-closet was, he said, adopted in preference to every other mode of carrying away the night-soil from premises—the open privy going back to a state of barbarism, and no wonder, for there was in Burslem, at this date, a total of over one acre of completely untreated night-soil exposed to the air, and this at a level where the emanations from such a mass of filth, was blown into the houses of the town. The efficiency of the water-closet was doubted, one member of the Board saying that houses fitted with them were obvious to anyone entering them.

At Cobridge, Lord Granville had been progressive and, between 1855 and 1857, had installed 126 water-closets in the cottages of his workmen. These, despite adverse opinion, had proved to be very successful and were greatly appreciated by the majority of the residents. At Middleport, in 1860, where new houses were being erected, the use of " trapped water privies," said to compare favourably with water-closets, were being installed for practical use and " as a trial to test their mints, both as to cost and efficiency, in comparison with water-closets." Indeed this makes an interesting comparison with the years of 1954 and 1955, just one hundred years after Lord Granville had tried out his new scheme at Cobridge. In 1950, a scheme for the conversion of water-closets was approved by the Ministry of Health and sanction given to spend £50,000. Water-closets are almost universal in the city, whilst on the limits, such as at Bemmersley, improvements to the sewer system had been made permitting a limited number of privies being converted to water-closets. Other outlying areas such as Linehouses and Packmoor await conversion of their privies until satisfactory sewers have been provided. Thus the picture is not yet complete, but by the end of 1955, the number of conversions on these outlying areas completed during that year had reached 146, bringing the total to 2,290. The average cost for these conversions was £37-6-0 and the total cost for the number quoted was £85,466-12-3d., of which the Corporation paid £36,410-8-6d., and the owner of the property £49,056-3-9.

If however the progress of water-closets was slow in the Potteries, there was much evidence to show that there was considerable room for improvement in the ordinary privy, which as already instanced, was the cause of incredible scenes and much bad health in the district and it is difficult to realize, as one writes in July, 1957, that just one hundred years previously, in July, 1857, a cluster of unsewered cottages, at the end of West Street, was sending daily a mass of liquid refuse, partly human excreta, down the steep embankment and at that spot " covering the present miserable apology for a footpath (in Bucknall New Road, Hanley) with offensive matter and adding a sickening annoyance to the insecurity felt by passers by . . . A more disgusting spot, could not be found in Hanley or Shelton." Doubtless this was true, but in the remainder of the towns conditions differed but little. In Newcastle Street, Burslem, there was some " very low cottage property," which the new main sewer crossed. Close to the cottages " not one of them fit for a human being to live in was a large pool of stagnant green water, surrounded by filth of every description." The property was in a most disgusting state, filth of all kinds was scattered about; and the children presented a shocking spectacle, with their bleared eyes and emaciated forms. Four years later, in 1861, Hanley still had the shocking record of possessing

cesspools containing 3,332 square yards of human excrement lying exposed to the open air !

In all the towns scavengers were employed in sweeping and the carting of ashes. Watering of the streets was gaining in popularity. In April 1859, Hanley Council decided to purchase two horses and carts with all necessary equipment, to be employed in cleansing and watering the streets, but the area covered, even four years later, was only 4½ miles of streets, and whilst one portion of the town was watered six or seven times a week, in other parts the streets were never watered at all. Northwood received no attention and Councillor Jesse Shirley declared that a watering cart in Etruria would be a novelty, although the people contributed towards paying for water used on the streets.

It was not until November 1859 that proposals were put forward for a scheme to adopt a sewerage system for the town of Longton. At a meeting of the Longton Commissioners, held at the Court House, visits to Cheltenham, Coventry and Birmingham sewage works were reported upon in detail. From these reports the system of sewers to be used at Longton was decided upon. Two main sewers were to run the whole length of the town. The first was to begin at the east end of Sutherland Road, passing down through Sutherland Road and Market Street, to the Market Place, receiving en route all the drainage from High Street, and the whole of that part of the town lying to the north and north-east of High Street and Market Street. At the Market Place it was to unite with the other proposed main sewer, which, communicating at the north-east end of Normacot Road, would proceed along, or near to, the town boundary, on the south side. It would pass up the lower end of York Street, across Lockett's Lane, Warren's Lane, School Lane and Gower Street, into Stafford Street, along which it would proceed to the junction in the Market Place; receiving on its way the drainage from all those parts of the town not already sewered, lying south of High Street. From the Market Place, the two would join and be continued to the outfall, which was to be on the east side of Mr. Sparrow's iron furnaces, bounded on three sides by the brook, and on the south side, by the private road to the furnaces. The entrance to this ground was near the bridge on the Foley Road, near to the north-east end of Marsh Street.

Some parts of Longton were at this period, 1859, already sewered after a fashion. Such was the case of Heathcote Road and adjoining districts, a very congested area of working-class houses, the majority of which were demolished early in 1957, and which formed an important part of the city's slum clearance scheme. The sewage of Edensor Road and district, was at that time, conveyed to an open tank which was situated in an open field, near to Gom's Mill. This tank caused much offence in the immediate neighbourhood. The total length of the new sewers, which were to be of various sizes, was to be about 10½ miles and would cost the town in the region of £11,500, in addition to at least £2,500 for land and the sewage works to be built on it. These suggestions were put before the Improvements Committee and were, in due course, carried out.

Much of the sewage and drainage eventually found its way into the River Trent, and in the year 1866, it was said that " it must be well known to all who occasionally pass by the River Trent through Trentham, where the mass of hideous and pestilential

sewage flowing from the pottery district accumulates, that the appearance of the river is most disgusting; and during the hot summer months the stench is intolerable." This came about by the sewage, (i) from Tunstall, Burslem and Hanley, draining into the Fowlea Brook, which empties itself into the River Trent at Stoke; (ii) from Fenton; (iii) from Longton, via the Longton Brook which entered the Trent in the grounds of the Trentham estate. Here at Trentham, the united streams carried the refuse from the towns, which at that date contained over one hundred and thirty-thousand people. It was said, in 1867, that " the pools of the princely grounds of Trentham Hall, are literally becoming the cesspool of the Potteries and that Trentham Hall is at present really not habitable for a part of the year." It was thought that the Duke of Sutherland might bring an action against the Local Authorities of the Potteries. The Sutherland family appears to have been most tolerant and reluctant to do such a thing, although earlier, the third duke of Sutherland had threatened injunctions against the Local Authorities to induce action to bring about an improved state of the waters. But patience could be exhausted in and 1902, the Duke was forced to take some action. Writing in July, 1905, to Lord Dartmouth, Lord Lieutenant of the County, the Duke of Sutherland said. " I think I shall be compelled to close Trentham Hall." It was understood that there was increasing anxiety as to the effect of the condition of the river upon the health of the children. Pressure was again put upon the Local Authorities, but it was pointed out that enormous sums of money were being spent by the Councils of the Potteries and district on sewage disposal and that at that date the Potteries County Borough had a debt of about £250,000 for sewage disposal works. The Duke had not pressed the matter because he had hoped that the towns would combine as one authority, and that such a step would lead to the remedying of the existing evil. Unfortunately the Federation project had fallen through and when it did take place in 1910, it was too late to be effective for the Duke had already made up his mind to leave Trentham. The furnishings were sold and a demolition sale was held in September 1911. Thus it may be said that the sewage of the Pottery Towns had been largely the cause of the loss of this magnificent mansion, the story of which must be told in another chapter. The previous paragraphs will indicate that sewage disposal of the district had been an urgent problem from very early times, but to view it in its proper perspective it is necessary to return to the year 1867, to follow the progress of a scheme which, although urgent, was to take very many years before it could be said to be fully effective.

The state of health in the Borough of Hanley, in June 1867, traceable indirectly to bad sewers and dirt, was still the cause of grave concern, although there was some improvement in the death rate. Attention was drawn to the sewers, " or rather ditches," at the bottom of Rose Street, Northwood, of which it was said, " if left in their present state with the high temperatures of the month, there will be an outbreak of cholera." In May of that year, there were 36 deaths, at the rate of 21.70 per 1,000, eight per 1,000 less than the average for the last ten years, said the Officer of Health for Hanley, Dr. J. S. Walker. There had been four deaths from scarlatina. Smallpox had been very prevalent in the neighbourhood of ' New Bucknall ' Road, and Chell Street.

Such was the offensive state of the open-water course flowing through Tinkersclough

and Etruria Vale (roughly parallel with the long and vast colliery and ironworks slag mound, known as the Tinkerclough tip. This, a land mark for some sixty years, is now, in 1957, rapidly being cleared away) that a petition from the inhabitants was sent to the Hanley Town Improvement Committee. This stream, which flowed down from Birches Head, had been of clear water, in a once pleasant spot, flowing into and out of the ancient Bell's Mill Pool. This mill was situated roughly between what is now Weir's glass works, and the building once the Free Trade Tavern (in Etruria Road) which is now occupied by the Potteries Demolition Company. Tradition records that the miller supplied Henry, Earl of Richmond, who later became King Henry VII, with corn to feed his starving army as it battled against the forces of Richard III. It seems more probable that the corn was given to Lord Stanley, as it is recorded that Richard, and probably Henry, did not themselves approach nearer than Stafford. The mill and a goodly area of land was presented to the miller when Henry was made King after he had finally defeated Richard at the Battle of Bosworth. The mill pool was filled in about the year 1900, the land having been bought previously by Lord Granville. As a result of the complaints made by the residents the brook was straightened and covered in, in 1868, at a cost of £220.

The Foulhey, or Fowlea Brook, was also described as " nothing better than a cess-pool " and it was in relation to this than an important meeting, at the Railway Hotel, Stoke, was called in January 1870. All the Pottery Towns were represented, together with Smallthorne and Newcastle, to consider the best means of effecting purification of the River Trent and other running streams in the district. Mr. Ridgeway, for Hanley, said that Earl Granville already took for his own purposes the sewage of about 14,000 persons, or one third of the population, and collected it in tanks. Presumably this was used as a land fertilizer and but for this the sewage question would have been even more difficult to deal with. Of Burslem it was said that there the Board of Health irrigated directly, about fifty acres of land with their sewage and fifty more indirectly. The result of the meeting was that a Bill was to be prepared, constituting a general sewerage authority for the whole district. The Duke of Sutherland offered to undertake the preparation and to pay the cost of the Bill. Points in the Bill were

(1) Prohibition of sewage draining into running streams.
(2) Constitution of a Board, representing all Boards of Health affected by the prohibition.
(3) Powers for the Board to devise means for disposing of sewage by (a) contract with persons or companies, or by, (b) purchase of land and erection of works for deodorizing, etc.
(4) Provision of funds by the Boards of Health in proportion to district rate and powers to the Boards of Health to borrow on rates, or by extension of their powers if necessary. Separate penalty clauses for boards or individuals were to be included.

The ideals of the proposed Bill were certainly a step in the right direction and glimpses of life in the Six Towns indicated that the public and authorities were taking an increased interest in the problem. In Bucknall Road, Hanley, 50 persons had been supplied with whitewash brushes by the Board of Health, to assist in keeping household privies in a fresh and healthy condition. Greater efforts were made by the ' Inspector of Nuisances ' to improve matters. He declared that he had great difficulty in getting

the night-soil carted away from Etruria on account of the toll gate, where toll had to be paid by each cart. It was greatly regretted that the Trent Purification Bill had been " thrown out " which now reduced the prospects of abating the very serious nuisances throughout the district.

There could be no doubt that poor sewers were the cause of a great deal of the disease in the Potteries. This was shown vividly by the fact that towns whose sewers were superior to others had a much lower disease and death rate. Longton, in 1871, was an example of the result of poor sewers. Here, Dr. Stevens, from the Medical Department of the Privy Council, said that " for filthiness I have seen nothing to come up to Longton and the lower end of Fenton, where many of the streets have no sewer except the gutter." Dr. Stevens was advising and reporting on the smallpox epidemic, that was raging, particularly in Longton. Here it was on the increase in June 1871, and during the week ending June 24th., the number of cases under medical treatment had risen from 206 to 243 and the number of deaths from 11 to 17. " In Longton there had been an enormous amount of neglect with reference to vaccination, and wherever there is neglect," said Dr. Stevens, " it is amongst those people on whose account the Vaccination Act is rendered compulsory." Vaccination was taking place in schoolrooms and public buildings. Dr. Stevens said that he had felt it his duty to report to the Privy Council, that Longton ought to be inspected, not only on account of the smallpox, but on account of the abominable filth in which the people lived. All this was well under a hundred years ago ! The doctor made it clear that filth and non-vaccination was the cause of the plight of the people in the year 1871. Such was the ignorance of some of the people that inmates at the workhouse, who had smallpox, had objected bitterly to their clothes being burnt, despite the fact that they had been supplied with better clothes. Disinfection of clothes at the workhouse was carried out with medium success—at least sufficiently for taking the vermin out of the clothes !

Thus continued the wearing and disheartening task of the few who had the health of the people of the Potteries in their care. In Hanley, in September 1876, a very bad state was reported in the question of the removal of night-soil, scarcely any carts coming into the town, due to the farmers being unwilling to neglect the harvesting of crops, and a very large number of the closets were so full that they could not be used. Seven cases of smallpox had occurred within the previous month and twelve in July. It is of medical interest to note that in the Borough of Hanley, in August 1871, there were nine deaths from measles, one from smallpox, thirty-six from scarletina, twenty-six from diarrhoea, six from whooping cough, one from dysentry and two from " fever," a total of fifty-three deaths !

Bye-laws were relaxed which enabled farmers to collect night-soil during the day, which helped the authorities to empty the closets, but which was not appreciated by the general public, one member who characterised it as a disgrace that they should have, at all times of the day, half a dozen of these barrels outraging the olefactory senses of all passengers through the streets.

It was at last realized that there could only be one effective method of dealing with the ever increasing sewage of the Potteries, namely the building of an efficient sewage works. In 1873 sanction was given by the Local Government Board for the Corporation to borrow a sum of money sufficient to lay out and to construct a sewage disposal

works. Two years later this was followed by a conference at which the various authorities of the Six Towns were represented. The result of this meeting was in the form of a resolution asking surveyors of the towns to confer on the subject of a united action, in dealing with sewage. This was in effect similar to a suggestion put forward and worked for by the Duke of Sutherland some years previously. Once again, owing to the difficulty of apportionment of expenses, it was decided that it would be best in the circumstances for each town to deal with its own sewage disposal. The Town Council of Hanley decided to construct a new sewage works at Trent Hay Farm, on nine acres of ground adjacent to Leek Road, to which a further fourteen acres of land were added in 1877. It was estimated that 1,000,000 gallons of domestic sewage would be received by the new works, from a population of 50,000 people. The sewage was first treated in four precipitation tanks. This was followed by intermittent downward filtration on some twenty acres of specially prepared land after which the water was discharged into the River Trent. The ancient farmhouse, possibly late Tudor in period, was altered to form two dwellings for workmen, and the farm buildings were utilized as store-houses. The dry weather sewage flow was in the region of one million gallons per twenty-four hours. Later, about the year 1880, a large volume of mine water was connected to the sewers. These works, so well described by Mr. W. H. Makepeace at the opening ceremony of a new works by the Earl of Harrowby in May 1907, which was also the fiftieth anniversary of the Incorporation of the Borough, were a great improvement and " stopped certain complaints which have been made as to Hanley polluting the streams of the Borough." In 1886, Hanley was congratulated on the whole of its sanitary condition by Dr. Barry, the Medical Inspector of the Local Government Board at that period, and who was well satisfied with the water supply and sewers of the town. Dr. Barry said there were 4,560 privy cesspits in the Borough which he recommended should be replaced as soon as possible by some form of closet, preferably water-closets.

In 1897, complaints were again received, this time from the County Council, of serious pollution of the River Trent by the Borough of Hanley and steps were taken to combat this by an agreement with a Leicester Bacillite Purification Syndicate, for treating the whole of the sewage by their patent process which sterilised the sewage and partly solved the problem. These works had cost the Corporation £62,000, made up as follows:—Main sewers of 21 miles length £25,000, 6 miles of intercepting sewers and storm overflows £18,000; sewage works, including land, £19,000 (which became £23,000 on the acquisition of a further 14 acres of land). Between 1899 and 1900 experiments were being made for treating sewage on biological lines, resulting in such success as to warrant the laying down of a complete installation for the treatment of the whole of the sewage from the Borough on these lines at a cost of £74,700. Much of the apparatus was made locally by Messrs. Hartley & Co., who have a long history of successful inventions in the sewage and general engineering world. The works were lighted at night by electricity, by the golden flame type of electric arc lamp. The new works was opened on May 23rd., 1907, by the Earl of Harrowby and were followed one year later, by the opening of a new works for Burslem.

Burslem's first sewage works, opened in September 1897, had been built at a cost of about £30,000. It consisted of screening chambers and two storage tanks. The

sewerage from these tanks was pumped during the day to the " Sewage Farm," of 314 acres, which lay at an elevation of from 200 to 280 feet, above the tanks at Bradwell Hall Farm. At one period in 1881, it was alleged that pollution of the wells at Longbridge Hayes and Longport, was taking place by the sewage from the " farm." The sewage was treated by the ' Broad Irrigation ' system and was raised to the " farm," about two miles away, by double-action Ram pumps, but by 1908 treatment of sewage on this " farm " was discontinued.

Tunstall had always laboured under great difficulties with regard to the disposal of its sewage and from an early period it had been harassed by litigation in relation to this question. When the sewage ran into the canal the Board were charged with pollution and when it was discharged into the Fowlea Brook, the Council were accused of taking surface water to which the canal was entitled. For years a sum of £500 was provided, in the estimates, for legal expenses in connection with this matter. All these differences were overcome in 1878, when a sewage works, on the west side of the town, was constructed at a cost of about £2,500. These works included two lime precipitation tanks and rough filters. They served their purpose very well until a subsidence of the land, through mining operations, impaired the efficiency of the works, and the volume of sewage had increased beyond its capacity for treatment and disposal. Later a new scheme was considered and sanction to borrow £23,500 was obtained for the the purpose of carrying it out. The new scheme, considered a very complete one, would necessitate a good deal of sewering, but would deal with the whole of the sewage from the town, including a portion of Chell (added to Tunstall in 1888). Sewage from this works, which came into action in 1896-7, was chemically treated in circular precipitation tanks with rough and polarite filters and the effluent was pumped to the Peacock's Hey Farm, a distance of half a mile, where it underwent " irrigation."

Longton and Lane End were incorporated as the Borough of Longton in April, 1865. Improvement in the sewers of the town was long overdue and very badly needed. Sewering the town was the first scheme of any magnitude which the Corporation had to undertake and was carried out at a cost of approximately £30,000. The question of sewage disposal arose, and an arrangement was entered into with the Duke of Sutherland, by which he constructed an outfall sewer from the boundary of the Borough to his land at Blurton Waste, where the sewage was treated on the principles of the Broad Irrigation, over about 250 acres of land. The arrangement held good for 21 years, and when it terminated the Corporation had to consider what should be done. A Sewage Disposal Committee was appointed and having made exhaustive enquiries, recommended that the Blurton Waste Farm, together with additional land, be leased from the Duke of Sutherland for the purpose of treating the sewage. Six settling tanks were constructed to be worked either continuously or as required, and a further acre of land was acquired. These and other works in connection with the scheme were estimated at a cost of £22,361. The Corporation was under agreement to take over the land for this purpose in March, 1899. In addition to this work of sewage disposal, a dust destructor, the first in the Potteries, was erected in 1877-8, at a cost of over £7,000 and here 220 tons of refuse were consumed weekly, all that remained being a clinker which was used in the making of

mortar.

About the year 1880, the Stoke Corporation purchased nearly sixty acres of land for the purpose of sewage treatment. The " farm " was situated at Sideway, then in the district of the Fenton Urban Council, but adjoining the Borough of Stoke where the town's sewage was carried by gravitation to a pumping station, and then lifted into sedimentation tanks. The effluent from the tanks was distributed over the sewage farm by rotation. The land, largely composed of gravel, was very suitable for sewage filtration and the effluent from this land was discharged into the River Trent. It is difficult to state the exact amount expended by Stoke on sewage disposal alone, but in a representation to the Local Government Board in 1902, at a period when the Borough sought to take in part of the Rural District of Wolstanton, it was stated that the total amount expended by the Corporation on sewers and sewage disposal works was £49,521. The annual cost of sewage treatment at Stoke, apart from repayment of loans, was stated to be about £1,000. The Corporation had never contemplated laying down more modern works, for at this time, they considered that the system of broad irrigation gave a fair, average affluent. In 1905 Stoke was temporarily turning a certain amount of crude sewage into the River Trent. This was caused by the breakdown of the Campbell Road sewer, due to mining subsidence. The Stoke sewage system was, at this date 1905, considered to offend least in polluting the River Trent, because they were able to obtain and utilize large areas of ground on which to treat their sewage.

Fenton's sewage works were laid out in 1883 to deal with the sewage of a population of about 13,000 people. The sewage was treated by broad irrigation on the lands of a " farm," rented at £719 per annum. The sewage went to the " farm " mainly by gravitation and by means of pumping at a cost of £600 a year. From this land the effluent drained into two brooks, the Longton and Chittlings Brooks, which flowed into the River Trent. In April, 1905, an enquiry was held to discuss the application of the Fenton Urban Council for sanction to borrow £33,500 for purposes of sewage disposal. This had been brought about by the Council being forced to adopt a new scheme, partly through their own recognition that the then present one was inadequate and inefficient, and partly by the intervention of the County Council, the Local Government Board and the Duke of Sutherland, who, in 1902, had issued a writ asking for an injunction to restrain the Council from polluting the River Trent which passed through the Duke's grounds at Trentham. In 1903 the Fenton Council obtained a provisional order to acquire 18 acres of land at Sideway, owned by the Stafford Coal & Iron Company, at a cost of £175 per acre, for sewage disposal works. The Council proposed to use the old sewage farm until 1912, when the lease expired, for storm water. They were to copy Hanley's sewage works, which had been described by the Medical Officer as the best in England.

Reverting to Burslem, one finds on September 29th., 1908, a new sewage disposal works, superseding the old works of 1879, was opened by Sir James Crichton-Browne, F.R.S. Here the sewage was treated bacteriologically. At this time the population of the Borough of Burslem was about 40,000, spread over 1,862 acres. Sewage was delivered to the new works by means of two main sewers, each three feet in diameter, known as the " high level " and the " low level." The major portion of the town was

drained by the high level sewer. The lower level sewer dealt with sewage from about 9,000 people. The dry weather flow was about 800,000 gallons of sewage a day, but three times this amount could be passed through the catchpits, detritus tanks and septic tanks. From thence it was pumped to a height of about forty feet and dealt with by the percolating filters, the effluent then passing into the adjoining Fowlea Brook. The sewage of three to six times the dry weather flow passed into the storm water beds. The site of this works was in the valley at Longport, between Burslem and Bradwell, and near to the old pumping station. This area, in 1908, was still quite a desolate spot.

It would appear that great improvements were taking place in the sewage disposal of the Six Towns and that all was well with the health of the people of the Potteries., bringing with it improved living conditions and well being of the people. Such indeed was the case in the majority of cases and the Councils of each of the Boroughs of the Pottery Towns had the right to be proud of their achievements. Let us take a look at the less bright side of life in the district at the beginning of the twentieth-century.

It is difficult to believe that in 1900, housing conditions for the multitude of poor people, in the Six Towns, were so appalling that only the celebrated Arnold Bennett could present a true picture of the scene, a vivid glimpse of which he gives from time to time in his novels dealing with the " Five Towns."

The Reverend Father O'Rourke, a severe, but thoroughly practical and very much loved Catholic Priest in Hanley, records that in the year 1900, he had seen six people sleeping in one bed—three at the foot and three at the head. In many cases the sexes were mixed and it was commonplace to find up to a dozen people living in two small filthy rooms. The town councils were either not aware or did not believe such evils existed. Special committees, composed of distinguished Aldermen and Councillors, including the Mayor of Hanley, under the title of " Housing of the Working Classes Act Committee," had been formed in Hanley in the late nineties, met only once in the first few years of their formation when they visited some local slum property !

Lodging houses were often plague spots where a family would pay two shillings a week rent and where the demand was greater than the supply. In one of these rooms in Hanley a family of ten was living and sleeping in a foul atmosphere, their only bedclothes the rags they were wearing. The children were black with dirt and so were the walls of the room which were spattered where scores of vermin had been squashed. The mattresses on the two beds were sodden, and the stench appalling. The remainder of the house was crowded in a likewise manner. In another house were found a family in which the father, mother, two boys, a girl and the mother's sister, aged 17, were asleep in one bed. It was said that each lot of tenants left their filth behind and that the new tenants rarely cleaned it away, preferring rather to move on than to do this work.

At that period, as indeed at the time of writing, many mothers of families were at work in the pottery manufactories, but it is a tribute to our educational system that general improvement in ourselves that the average mother of today would not tolerate the conditions which the mother of 1900 was either too apathetic or too tired to bother about. Hanley was said to have been the worst and most evil spot in all the towns,

parts of it which for filth and immorality, the East End of London, with all its squalid misery, could not be compared. " Its rows of ill-built houses harbour many of the worst characters, during the hours that the gas lights glimmer; sober men pass not that way," wrote a ' Sentinel ' reporter. " In daytime see the inhabitants shrink indoors and hear the bolts and bars go when a stranger passes." Often there was only one tap to supply water for every four houses. In one street, near to the bottom of Birches Head Road, Hanley, one tap catered for the wants of some thirty houses with at least one hundred people. The greed of the landlord was said to be a main cause, but these people were able to justify themselves. The real reason one feels was to be found to a large degree with the residents themselves. Their drunkenness and large families which they could not afford to keep were the result of their own failings and ignorance.

Longton was a town of narrow streets, winding lanes and courts hidden under a pall of smoke. Here in one street was to be found only one privy for seven houses. At one house part of the roof had fallen in, but the rent was being paid regularly. One year later it was still open to the sky with water seeping through the bedroom floor into the kitchen. Plaster and paper were peeling from the walls, and here lived a family, with four children. Forgotten by the landlord, whose agent collected the rent of half a crown a week regularly, they were too apathetic even to cover the hole in the roof—who was to blame ? In another street in Longton, the roof of a house started to collapse during the night and was shored up by a long baulk of timber, wedging it firmly against the bedroom floor. One year later it was still there and the family had moved to the room below where they lived and slept ! At a Longton pottery factory, where several hundred male and female workers were employed, there were two lavatories standing not more than one yard from the main road and separated only by a wall. There were no doors to these buildings and in addition to being in a filthy condition, had to be used in full view of any other workers. Finally here is a factual record related by a well known property owner in Hanley, about the year 1900, who also claimed that it was not the potters who were the dirtiest, but that it was amongst the forgeworkers the worst offenders were to be found. " I have seen many houses that are overrun by vermin and the walls in many of these cases are spotted with their blood. . . . The poverty brought on by drink is appalling." This same landlord also said. " I remember going into a house and seeing in one of the downstairs rooms a woman who had recently given birth to a child, lying on a door supported by saggars. I asked her how it was she was not in bed, and she replied, " I am here because I am near the fire." The door I may add, had been removed from the W.C."

Dr. Folker, the Medical Officer for the factories, also told of the many operatives he had to declare as unfit for work, at least temporarily. " Four or five girls were seated on a form when the doctor entered. The first girl came forward for examination and was passed as fit for work. The second girl's hair engaged the attention of the medical man for a longer time. At last the hair was raised—the filth was in a mass, and the head of the next girl who came forward was just at bad. On the seat on which the girls had been sitting, vermin were subsequently discovered. One mother, accompanying her daughter said that it was healthy for a growing girl to have a few ' nits ' in her head."

Within the last few years, a block of thirteen small houses, situated on the corner of Chelson Street, near to the foot of St. James Churchyard, Longton, and adjacent to the American Hotel, have been demolished. Here there was one lavatory and one tap for the use of the many inhabitants. They often had to queue to use them yet these people lived in happiness and harmony until at least 1950. In some respects conditions were as bad as those of 1900, yet in this enlightened age, these people were clean, happy and respectable citizens of Stoke-on-Trent. The difference between 1900 and 1955, lay in the education of and in the cleanliness of the people themselves. Thus in 1955, one finds that there were only 73 cases of overcrowding to be found as a result of special enquiries in the city and that there were only 7 verminous and 11 dirty houses. In addition 7 dirty closet apartments and pans were found, also 4 with no flushing apparatus to their water-closets and 355 lacking in proper water supply to their W.C.'s. No defective privies were discovered in the city and only 3 defective septic tanks. There were numerous small defections in houses—damp and dilapidation being the causes. Of a total of 11,496 nuisances found, 9,997 were abated. This was the result of 18,564 inspections and revisits. Out of eight inspections to public conveniences none were found defective.

Under Federation of the six towns, which took place in 1910, Stoke-on-Trent, together with a few small areas outside the boundaries was served by seven sewage works situated at Hanley, Burslem, Tunstall, Stoke, Fenton, Longton and Meir.

In 1923, relief works for the unemployed in the Potteries, took the form of an £84,000 scheme spread over the winter and for which a substantial grant was asked. Despite this it was realized that only a small proportion of the unemployed could be absorbed by the work on hand, extensive though it was. The relief scheme gave half-time employment for about eight-hundred men for a period of some thirty-two weeks. The scheme was divided into two groups, the first relating to drainage, sewers and sewage disposal and the second group to street widening and improvement.

In 1926, a new scheme for dealing with the sewage for Stoke and district was placed before the Ministry at an estimated cost of £120,000. At this period, about eight-million gallons of sewage per day was treated at the various sewage works of the Potteries, whilst six times this amount could be dealt with in wet weather. Owing to the natural lay out of the district a comprehensive scheme of drainage was considered to be ideal but too difficult and expensive to carry out and was put off for a more favourable financial period for development. Owing to the smallness of the streams passing through Stoke-on-Trent, the degree of purification had to be much higher than would be necessary for other towns. At this period the sewage engineer was Mr. W. H. Makepeace, A.M.I.Mech.E., F.Inst.San.E., who came to Hanley with the firm of Wilcox and Raikes, who were laying out a sewage works for the Borough of Hanley. Today his son, Mr. W. H. E. Makepeace, is the City Sewage Engineer.

In October 1927, a Ministry of Health enquiry was held in connection with the Stoke sewage scheme and in 1928, construction of the first section of the scheme, know as the Strongford Scheme, was started to serve the Stoke, Fenton and Trentham districts of the city, areas with a total population of over 85,000. In the same year, a conference held at the suggestion of the Ministry of Health, at which the sewage problems of Newcastle and district were discussed, resulted in an agreement being reached in

1932. By this the sewage of the Borough of Newcastle-under-Lyme, was to be treated by the City of Stoke-on-Trent at Strongford. The total population served by this works was 146,000 in 1936, when the extensions were inaugurated. In 1938, similar agreements were made by the City to receive sewage from Stone, Barlaston and Swynnerton. In April, 1946, they submitted a proposal to the Ministry of Health for a further extension of the works to treat the sewage of Longton, owing to the inadequacy of the treatment of the sewers of Longton at Blurton Waste and Newstead. This freed a very large portion of the Blurton Waste Farm, for developing the new housing estate which exists there today. Indeed when the Strongford Main Drainage Scheme was finally completed in 1951, the Sewage Committee had been able to release land for other Corporation uses. 165 acres were made available for the erection of 1,200 houses, and 35 acres for industrial uses. Finally the new proposal would provide the British Electricity Authority, with a large volume of sewage effluent for the cooling towers of the Meaford Electricity Power Station. The sewage department is now able to place seven million gallons of effluent per day, at the disposal of industry.

Drainage takes place from Goldenhill, which is virtually the highest point in the city, being 700 feet above sea level, to Strongford, which is the lowest level in the city, being approximately 300 feet above sea level. The following recorded heights will be of interest.

St. John Street, Hanley	628	feet above sea level.
Birches Head Road, Hanley	597	„ „ „ „
Birches Head Reservoir	about 630	„ „ „ „
High Lane, Burslem	674	„ „ „ „
Packmoor	720	„ „ „ „
Sandon Road, Meir Heath; on the city boundary	805	„ „ „ „

Before the Strongford Scheme the sewage of the city was being dealt with as follows:—the north-east and central areas, by the Hanley Sewage Works at Leek Road; the north-west area by Tunstall and Burslem Sewage Works in the valley of the Fowlea Brook, and the south-east part by works at Meir, in the area of the River Blithe.

In 1951, the Strongford Main Drainage Scheme which was to help materially in dealing with the sewage of the population of the City of Stoke-on-Trent, of about 275,000 people, was completed at a cost of £620,000, which included land, sewers, pumping mains and works. The original scheme and extensions had been designed by Mr. Makepeace and members of his staff and in an agreement with the National Coal Board, the area was to be safe from mining subsidence, which had caused so much trouble to the earlier sewage works.

Methane gas, a form of marsh gas, produced from the sewage sludge in tanks 85 ft. in diameter and 28 ft. deep built on concrete piles and covered with spiral carriage gas holders, is put to practical use at the works for the generation of power, heat and light. From about 40,000 tons of sludge disposed of each year 1,000 tons is specially prepared and sold as a good fertiliser and top-dressing for poor land. Perhaps one of the most remarkable achievements noticed by a visitor to the works is the offering to them of a glass of crystal-clear water which has been completely purified from the

original sewage water ! This, one feels, symbolises the fact that this wonderful service is available to every home at an approximate cost of only 2d per head per week.

The tributaries of the River Trent which play an important part in the sewage disposal of the City are the Fowlea Brook, the Ford Green Brook, the Lyme Brook, Trentham Park Brook, the Adderley Green Brook, the Chittlings Brook and the Longton Brook with its tributaries the Anchor, Cockster and Newstead Brooks.

The Fowlea Brook, whose source is north of Kidsgrove, forms the boundary between the City and Newcastle. From Etruria Station it flows in a concrete channel which cost about £90,000. The first part (£60,000) with culverts under Shelton Old Road and Liverpool Road, was constructed in 1930. The second section (£30,000) to the junction with the Trent, with a culvert under the Town Hall, was constructed in 1937. By the Stoke City Football Ground the Fowlea Brook and the Trent run side-by-side in separate concrete channels.

All these streams have to be watched and cleansed. Such tasks take considerable time and some idea of the work of this cleansing will be gathered from the fact that on the 2,500 yards of the Fowlea Brook from Etruria to Copeland Street, Stoke, it takes a considerable party of men the whole of a summer period to remove all the debris flung into the stream, mostly from the back-yards of houses and by youths and children. Children, along with householders, are the main offenders as illustrated by the fact that one workman, superintending work on the bed of the stream, was struck on the head by a large mattress that came hurtling over the wall of a house whose backyard abutted on the brook ! This work, together with that done on other streams, costs an average of £1,400 a year. Official figures show that no fish could live in the Stoke section of the brook as there is almost no oxygen in the water. The figures also show that the oxygen content of the River Trent, as it enters the city boundary, is very high. It is fresh water in which fish abound, but where the Fowlea Brook enters the River Trent at Stoke, the oxygen content is very much reduced by pollution. Neither fish nor plants live in the stream at this point, or indeed at any points where poisonous matter enters it in sufficient strength. The brook was cleaned out in its passage of six miles through the city in 1946 and in December 1953, the sewage engineer, Mr. W. H. E. Makepeace, reported that the brook had again been cleared, the work having taken seven months. Owners of property, on either side of the brook including British Railways, were asked to contribute towards the cost and to help to keep the brook clear by avoiding tipping on the banks of the stream. In addition it was estimated that 13 million gallons of sewage effluent flows into the brook each day.

Subsidence is also a problem and causes some damage to the brook's concrete channel. This is a more serious problem however where it affects the main outfall sewers, which are of great length and considerable diameter. This subsidence in the the Potteries, is due to coal mining. Mr. D. F. F. Brewster, the City of Stoke-on-Trent Surveyor and Engineer, said in 1956 that, " Stoke-on-Trent is underlaid by twenty-two seams of coal, with a total thickness of more than eighty feet." He continued. " Over the years much of the coal has been extracted, but much remains. The depth of subsidence as a result is usually six inches a year, but in places eighteen inches is not uncommon, and three feet has been known." Mr. Brewster fears that Stoke-on-

1. The importance of drainage is well illustrated by these photographs taken at Ford Green in 1946. The ancient Ford Green Hall, since restored and once the scene of repeated flooding, is seen to the left of the picture. The pictures are historic and unique for a culvert costing £18,000, completed shortly after this flood, prevents a repitition of the scene. In that year on Friday, February 8th, the water reached the railway crossing. Chain Row, seen on the right, was in course of demolition due to dampness. This Elizabethan house, the last remaining architectural treasure within the city, was purchased in a state of decay by the corporation in 1946 at a cost of £1,100. Four and a half acres of land were given by the Cadman family. The Hall was restored and opened as a Folk Museum in 1952. Over £9,000 has been spent on the building whilst maintenance is in the region of £1,300 a year. Educationally, a most valuable asset to the city, some 29,500 people have visited the Hall in six years. In December, 1959, a member of the City Council declared that because of the cost the Hall should have been bulldozed down in the first place and the site put to better use !

2. The day after the deluge was clear and sunny and boating took place on the 'lake' beneath which lay the main road to Norton-in-the-Moors.

3. Mr. Alfred Brown, of Brown's Motor Co., Tunstall, together with colleagues, brought a boat from Tunstall Park lake and in torrential rain helped to rescue residents from the Hall and cottage via bedroom windows.

Trent will have to undertake a scheme for the reconstruction of the main sewers of the city, running into a capital cost of several million pounds ! Enormous costs, such as this, are typical of the age, yet sewage disposal and drainage are essential services and are linked to many other services such as housing. Whenever building is contemplated, extensive sewage disposal schemes must take place and the housing projects in the city have reached vast proportions. A drainage scheme, such as that planned for Hanford in 1956, is just one of many. Here the drainage scheme is to provide land for the building of at least 2,000 houses. The plan includes an automatic pumping station at Ash Green and a sewer to the Strongford Sewage Works, costing about £50,000.

Closely linked with sewage is the City Cleansing Department, at Booth Street, Stoke. Here, general refuse from 75,000 dwellings is dealt with by a staff of 450 employees. In addition there is the sweeping of the 235 miles of streets in the city. The Sanitary Inspector has powers under the Public Health Act of 1936, the Housing Act of 1937 and the Food and Drugs Act of 1938, to protect the health of the public.

The latest development, the Blithe Valley Main Drainage Scheme was carried out (1954-7) under the auspices of the City of Stoke-on-Trent, the Cheadle Rural District Council and the Stone Rural District Council. The sewage works is designed to deal with a population of 70,700. Its principal features are, (I) Sewage Purification Works at Deadman's Green, between Checkley and Fole, (II) a large sewer in the River Blithe Valley, between Roughcote (near to Weston Coyney) and Cresswell (near to Blythe Bridge), (III) a sewer between Cresswell and Totmonslow, and (IV) a sewer in the Tean Valley between Totmonslow and the outfall works.

The City Sewage Engineer, Mr. W. H. E. Makepeace, has thus a major problem in handling the sewage of an industrial area with over 350,000 people.

CHAPTER 6.

Local Government

Whatever the earliest forms of local government it was the parish that eventually became, for practical purposes, the unit of local government and the authority was the 'parishioners in vestry assembled, supervised by the local justice and County Bench of Magistrates.' Those officials of the district, responsible for meeting the ordinary needs of the parish, were the constable, the surveyor, the overseer of the poor and the church warden, chosen from the more intelligent of the parishioners. They served in a voluntary capacity under the head of their church whose wisdom was usually unquestioned. Such then would be the main form of local government of the area which comprises the main part of the present City of Stoke-on-Trent at a period (mid seventeenth century) when the staple industry of the district was the making of crude pottery.

In Hanley, in 1783, the 'Ancient Corporation of Hanley' was formed complete with a Mayor and composed of 'Corporators' of Hanley and Shelton who became Councillors and Aldermen. The Corporation held its first Mock Mayor's Feast (now better known as the Venison Feast) on September 18th, 1783. From the first the assembly was composed of wealthy if not always distinguished pottery manufacturers and other worthy townspeople. This admirable venture has survived to this day. Of course the Mayor and members of this 'Ancient Corporation of Hanley' had no civil authority or powers of office and if therefore almost useless in assisting in the local government as an association, individually members could, and no doubt did, assist in guiding those less fortunate than themselves. The test of admission to the Council of this convivial corporation was and still is the ability of 'drinking off a yard length-glass of ale' except that wine is now substituted for ale.

The turn of the eighteenth century was an era of many changes. The Industrial Revolution was well under way and the Potteries was becoming a place of ever increasing importance. The new age, with its expanding communications became more and more difficult to manage under the Parish System. Increasing population brought with it problems rapidly becoming unmanageable and the Parish was confronted with the need for a sound means of keeping law and order, improved roads, sanitation, lighting and many other essentials that could no longer be ignored in the towns and villages that constituted the Potteries—and which, as late as the turn of the nineteenth century, had no form of corporate government. The six towns, with their legacy of the old manorial system, were rising in a distict whose improved products of pottery ware were becoming widely known and in demand in many parts of the world. This was due to the genius of those few pioneer potters who had lifted the local industry from a crude craft to degree of perfection which could successfully compete with the wares of Sèvres and Dresden and other continental areas.

The greater part of the area known as the Potteries was in, or connected to, the Manor of Newcastle. 'The County Justices were the agents of Local Government

and the Poor Law Administration was based on the unit of the parish, primarily an ecclesiastical area. The Parish of Stoke-upon-Trent comprised the townships and vills from Hanley to Longton; Tunstall and Burslem were in the Parish of Wolstanton.' If these six areas of urban population were to be developed, corporate status would have to be achieved and areas of local government substituted for those of the parish. These would cut across the old manorial of the ecclesiastical boundaries.

An Act of Parliament, dated 1813, made Hanley and Shelton (whose names had been bracketed together as early as 1714) a Market Town. The Act provided for establishing and regulating the market for enlarging and improving the Market Place at Hanley. This was followed, on December 12th, 1817, by a meeting held in Hanley, with Sir John Heathcote in the chair, at which the following resolution was passed:- 'That in order to overcome the difficulty which now exists in regard to the mode of calling Public Meetings of the inhabitants of the Potteries at large, it is proposed, resolved, and agreed that in future all Public Meetings convened by and in the joint names of the majority of the Head Constables for the time being of Burslem, Hanley, and Shelton, Stoke, Fenton and Lane End, shall be understood and considered as regularly convened; and that such Head Constables be recognised as the authorised organs on such occasions and as the proper persons to whom Requisitions may be addressed for calling Public Meetings from time to time; the same to be held at Hanley as the most central and usual place of meetings for the Potteries at large.' Thus people were becoming more aware of the need for a more direct way of voicing their opinions, resulting in a better understanding. The change was coming. Manufacturers and the more wealthy citizens of each area got together to petition Parliament. They realized that not only was it up to them to give a lead and to improve local government, but also that, in the main, they had been, and would be, those with most to lose if unfavourable conditions and disorder were allowed to prevail. The Acts of Parliament granted usually secured powers for the formation of a body known as 'Improvement Commissioners,' which had power to levy rates and employ full time officials. In later years, as the population increased further, Parliament was petitioned for permission to set up Local Boards of Health, but in this district Commissioners, under various titles, were the first to govern. The usual name, 'Improvement Commissioners,' covered a multitude of duties. Other names by which they were known included Commissoners for Watching, Draining, Lighting and Paving of the streets. Commissioners were appointed either by their being named in the Act of Parliament with authority to re-elect or renew their members. In some cases they were elected by rate-payers according to the privileges laid down in the Act of Parliament.

The next important date in Potteries history was therefore 1825, when an Act was passed in Parliament for 'regulating the markets in the town of Burslem, and for lighting, regulating the police and watching the said town of Burslem, and the vills of Longport, Cobridge, Sneyd Green and parts adjacent in the Parish of Burslem.' An attempt to legalize the market had been made as early as 1812 which was unsuccessful and it was not until 1824, that a renewed attempt was made resulting in the above Act being passed on the 10th June, 1825. In the same year an Act for watching and lighting the townships of Hanley and Shelton was accomplished. The

Act stated who were empowered to levy rates, to appoint a Chief Bailiff, (to be sworn as a Constable), a head and deputy constable and watchman for the preservation of peace. This Act was amended in 1828, owing to dissatisfaction on the question of rating of property by the 1825 Act, which gave no limitation as to the annual amount of the rate. The amended Act, limited the amount to six pence in the pound in respect of property assessed at six pounds a year or under; nine pence in the pound between a rental of six pounds and eight pounds; and one shilling in the pound on property of more than eight pounds value. In addition a Chief Bailiff took the place of Commissioners. The first was Mr. John Yates. His duties were to convene meetings when he was to preside. He presided at all public meetings of the inhabitants, in addition to controlling the constables. In addition to 'watching and lighting' the Act also authorized to 'laying of main pipes, etc., to be laid under the streets, and to break up any streets for this purpose.'

The Parliamentary Borough of Stoke-upon-Trent was established by the Reform Act of June, 1832. This enabled, first one and later two local representatives to be sent to Parliament, which previously to the first Reform Act had been confined to the sending of two 'county members.' Needless to say the obtaining of Parliamentary representation had not been easy for in the first draft of the Reform Bill no mention of the Potteries was made. Only after much anger had been expressed one member was conceded. A further seat was sanctioned as the result of considerable agitation. The new Parliamentary Borough (the name of which was the largest parochial division in the district—Stoke-upon-Trent) comprised the major portion of the Potteries. At that date it included the townships of Penkhull-with-Boothen, Hanley-and-Shelton, Lane End, Longton, Fenton Vivian and Fenton Culvert, in the parish of Stoke; the townships of Burslem and Sneyd, in the parish of Burslem; and the township of Tunstall, in the parish of Wolstanton. The Administrative Borough and the Parliamentary Borough of Stoke-upon-Trent were two distinct areas. Voters were those who were resident occupiers of houses, or other buildings, of the yearly value of £10 or upwards. The number of registered voters in 1833 in the Potteries when the reformed Parliament became very active, was 1,349. The two first members to be sent to Parliament were Mr. Josiah Wedgwood and Mr. William Davenport. The great champion of reform, Lord Brougham, introduced a Bill into Parliament in 1883, for the purpose of granting Charters of Incorporation to all new Parliamentary Boroughs, for their future government, under the direction of municipal corporations. These were to consist of 'a Recorder, a Mayor and a number of Aldermen and common Councilmen,' with power to levy a yearly rate on the inhabitants for the support of an efficient and armed police force, and for watching and lighting the streets.

In the first six months of the year 1834, many meetings were held in the towns of the new Parliamentary Borough of Stoke-upon-Trent and one, held on January 9th, 1834, was attended by two of His Majesty's Commissioners. In their report they said 'that as the Potteries are composed of a cluster of towns, extending over a space of ten miles in length, and not a single town with a condensed population, a strong case was made out, that with reference to the administration of justice, the principle of the Bill should be departed from in this instance.' The meeting was of the opinion

that the Borough should be divided into six wards, viz, Tunstall, Burslem, Hanley, Shelton, Stoke (including Penkhull, part of Fenton, and a small portion of Shelton) and Lane End and Longton (with a part of Fenton). It was suggested that each ward should have two Aldermen, and a number of common councilmen, in proportion to the number of electors. However the time for incorporation was not yet ripe, indeed it was to be more than twenty years before Hanley applied for 'Incorporation of the Borough.'

At several of the early meetings the idea of having Charters of Incorporation seems to have been well received at first but after further consideration public opinion changed and 'the workmen now raised their voices loudly against incorporation.' At Burslem and Tunstall the upper classes sided with the lower classes against the new charter. There was opposition in Hanley too, with the Chairman of the meeting leaving before the motion was put! In Longton a meeting held to discuss the appointment of a local Magistrate or Incorporation of the Borough rejected both. It was thought that all that was needed in the new Parliamentary Borough was a resident Magistracy, which it could not possess in a better form than by placing the Chief Bailiffs of Hanley and Shelton, Stoke, Lane End and Longton, Burslem and Tunstall, in the Commission of the Peace, for the purpose of holding petty-sessions, weekly, in their respective districts. A stipendiary magistrate would sit on the bench with each of the Chief Bailiffs in their weekly courts. In this way it was thought that each town of the widely spread borough would have in itself all the essentials of civil government at a much less expense than that of a corporation, with all its titled members and armed police officers. The result was that numerous signed petitions were sent to Parliament, 'praying that the Potteries might be left out of the list of places enumerated in the proposed Incorporation Act.'

The interest that the proposed Act caused was not without effect and in 1839 an Act to provide a more effective carrying out of the duties of the office of a Justice of the Peace in the Potteries was brought into being and a Stipendiary Magistrate, the first being a Mr. T. B. Rose, of Penkhull, was appointed who covered the area 'in a rotary manner.' A rate was levied to cover the expenses of the office. In addition, Head Constables or Chief Bailiffs were appointed Commissioners. From this time onwards, Acts followed on the heels of one another. In the same year (1839) came an 'Act for establishing an effective Police in places within and adjoining to the district called the Staffordshire Potteries, and for improving and cleansing the same and better lighting thereof.' There were to be Commissioners, Chief Bailiff and Constables in each district.

In 1840, an Act 'for regulating and maintaining the markets and Market Place in the township of Tunstall in the parish of Wolstanton,' was passed. Another Act (1845) was to establish a market in the town and borough of Stoke-upon-Trent. Tunstall had its 'Paving, Lighting, Watching, Cleansing, Draining and Nuisance Abating Act,' in 1847, which included, 'improving and regulating the Market Place and markets therein.' It also gave the Commissioners powers to deal with all the basic services for Tunstall with the exception of the police and the Relief of the Poor. The latter was dealt with by the Board of Guardians which remained with the County. It was, however, considered that the Commissioners were not so efficient as was the Burslem

Board of Health. This had its Sanitary Inspector, Medical Officer of Health, Surveyor, Standing Committees and Clerk, and was looked upon as an example of what a Local Board of Health could, and should be at that period, although it was set up some three years after the Tunstall Improvement Commissioners. Indeed a subsequent enquiry at Tunstall, held between 1846-1847, revealed the fact that the town was, 'ill-lit, the police never there when wanted, and public water, drainage and sewage schemes non-existent.' Improvement Commissioners were elected only by tenants of property paying more than £10 a year in rent and by owners of such houses or property. The result was only a small proportion of the rate payers were eligible to vote, which in turn meant that the bulk of the population had no say in the policy of the Commissioners. In due course, however, Tunstall held a meeting, in June 1854, at which they elected a committee of twenty people with instructions to draw up a petition to the Government requesting that a Local Board of Health should be established in Tunstall. This was granted in the following year. In 1850 Burslem was constituted a Local Board of Health, which included Burslem, Sneyd and Rushton Grange. This came after an investigation of the General Board of Health in London had revealed that the annual death rate in Burslem was in excess of 27 per thousand of the population. Thus Smallthorne (1854), Tunstall (1855), Hanley (1858), Longton (1858) and Fenton (1873) eventually became Board of Health districts.

The Boards of Health, which were numerous in the Potteries, were made possible in 1848 by an Act of Parliament which inaugurated a General Board of Health in London, with authority to establish Local Boards of Health in any area where over a period of seven consecutive years, the death rate had averaged more than twenty-three persons in every thousand of the population. It was also possible for a community to apply voluntarily for the setting up of such a Board in their town. Qualification for election to the Board was the possession of estate of at least £1,000 value, or being in the occupation of premises with a rateable value of £25 or possibly £30. Male rate payers only were eligible to vote while more than one vote could be used by wealthy rate payers, according to the property he owned, up to a maximum of twelve votes. The Boards were considered more practical than Improvement Commissioners, an important point being that the meetings of the Board of Health were open to the press and members of the public, which was rarely the case with Improvement Commissioners. Also the Boards of Health were advised from the London offices, but in the case of the Commissioners there was no Government department to watch over them.

Hanley was one of the last of the towns to take advantage of the Health Board System and Alderman W. T. Copeland, writing to the ratepayers of Hanley and Shelton in July 1854, sent his congratulations on the success of the township in escaping from, 'the operation of the Health of Towns Bill, under the dictation of the London Board of Health,' which he, Alderman Copeland, had opposed. Mr. Copeland gave several reasons for this opposition. He was desirous, he said, to contrast the 'present conduct' of one of the principal supporters of the Bill with his conduct at the last election. Then, universal (certainly household) suffrage was the cry! Now, a £25, if not £30, qualification was necessary for local government! Could both be sincere, asked Alderman Copeland who also found that, 'while in 1852, you (in the

Borough) were the best fellows living, you are now characterised as "a low, dirty, democratic, chartist lot," and that, "such dirty shopkeepers" are not fit to associate with such important persons.' Alderman Copeland also had an aversion to a system of centralisation being introduced into Hanley, depriving the people of a fair voice in the management of their own local matters, which in his opinion, were quite capable of doing without any 'foreign aid.' 'Foreign' was a word much used in the parochial towns of the Potteries, a term which was applied even to people from a neighbouring town, as when a Tunstall man referred to one from Burslem. Mr. Copeland also naïvely suggested, 'if you look at the case of Burslem, and see the cost of the works of the Board of Health there is not much in excess of the estimates.' Alderman Copeland was of course remembered in the numerous votes of thanks that were passed when the official news that 'the provisional order for applying the Public Health Act to the townships of Hanley and Shelton has been withdrawn,' was made known to the Commissioners at Hanley. From the published placards, the opposition party appeared to regard the result as a great triumph. We are not told whether the canvassing of the townships for subscriptions to defray the necessary expenses incurred in opposing the Bill, met with the same enthusiasm.

Another, and important, form of local authority not as yet mentioned in this work, was the Board of Guardians which was brought about by the Poor Law Reform Act of 1834. The Act did away with the parish as a unit, which had had the care of the poor since Tudor times with funds collected from a parish rate levied by the vestry and dealt with by the overseers of the poor and supervised by local Justices of the Peace. At various stages in the Industrial Revolution some distress and poverty was caused. In the Potteries it was due in no small measure to the use of machinery in the 'Pot-Banks.' An emigration scheme was even started to alleviate some of the suffering. The parish system broke down and the Poor Law Commissioners were set up in London. Under their direction the parishes were combined into unions and Boards of Guardians were elected by the ratepayers of each union. The Potteries had two such unions. Burslem and Wolstanton parishes were combined to form one union, which dealt with their own cases, those of Tunstall and other parts of the Potteries not under the care of Stoke parish which was made into a union dealing with the districts of Stoke, Hanley-and-Shelton, Longton and Fenton.

May 22nd, 1957, was the centenary of the Incorporation of Hanley, a date which commemorated one hundred years of progress. The day passed without any Civic or public ceremony in the City of Stoke-on-Trent, but the 'Sentinel' produced an interesting four-page supplement to their evening paper on Wednesday, August 28th, 1957.

In the evening of February 6th, 1856, an important public meeting was called in the Town Hall, Hanley. It was a meeting of the ratepayers of Hanley and Shelton to consider, 'the propriety of memorialising Her Majesty (Queen Victoria) in Council to grant a Charter for the incorporation of the said townships.' Such was the interest taken that people arrived at six o'clock for the meeting which had been called for seven o'clock in the Town Hall, then on the site of the present Lloyd's Bank. Such a Charter, if granted, would mean that the form of municipal government, conferred by the Charter of Incorporation, would consist of a Mayor, Aldermen and Councillors of the

Borough of Hanley, who would be elected annually. One third in number of the Aldermen and Councillors (which number is specified by the Charter) go out of office annually by rotation, those originally returned by the lowest numbers of the votes going out the first, and so on.

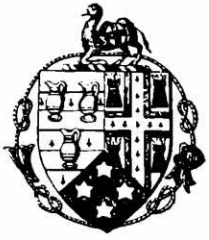
The powers held by the Market Trustees and by the Commissioners under the Lighting Act would become vested at once by their voluntary surrender in the new Town Council. The management and repair of the highways would also be dealt with by the Council. A suitable number of gentlemen, resident within the Borough or within seven miles of it, would be appointed magistrates for the Borough. The Police Force would be appointed and remain under the control of the Council, and after a notice of three months to the Clerk of the Peace, the contribution of the Borough to the County Police rate would cease. The powers vested by the Nuisance Act in the Lighting Commissioners and 'heretofore' exercised by the Poor Law Guardians, would also pass to the Council and its officers.

The licences of public houses in the Borough would be granted or withheld by the Borough Magistrates and 'all appeal business, for which the public are now taken to Trentham, will then be transacted within the Borough.' Also, 'the authentication of legal instruments going abroad, to accomplish which we must now resort to the Mayor of Newcastle, will then be done at home.' The cost of obtaining the Charter, including the Commissioners expenses, was estimated to be between £500 and £600, which would be provided in the first instance by subscription and subsequently out of the Borough rate. If the proposal was accepted, the petition was to be presented, after which it would be referred by the Privy Council to a Commissioner, specially appointed. He, after a month's public notice, would open a public inquiry on the spot, 'relative to the propriety and desirability, or otherwise, of granting a Charter, and the division of the Borough into wards, their boundaries and the qualification of Town Councillors, at which all inhabitant householders will be invited to attend and give evidence.' The Commissioners report would then be considered by the Privy Council.

The meeting, in the Town Hall, went on from 7-0 p.m. until after 11-30 p.m., and the majority being in favour, Mr. E. J. Ridgway proposed that the petition be adopted. The motion was carried almost unanimously.

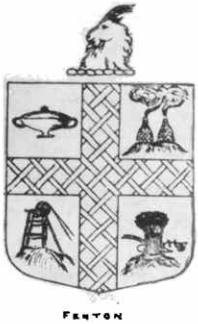
In November, 1856, the public enquiry was held before Major Warburton, the Royal Commissioner, who was shown two maps of Hanley and Shelton prepared by Mr. Robert Scrivener, surveyor, of Shelton. One map showed the township divided into three wards, and the other into four wards. Many people spoke in favour, or against, the proposed Charter. The 'Sentinel,' under the editorship of Mr. Tom Phillips, backed the proposal for a Charter of Incorporation. Mr. Phillips, who had then been editor of the 'Sentinel' for over two and a half years, advised that a £15 qualification of rating for membership of the new Council would best harmonise with the wishes of most of the inhabitants. He said that such matters needed careful attention. The Court of Inquiry, having been in session for eight days, rose at 5-30 p.m. on Thursday, November 5th, 1856, when the Commissioner returned to London with the considerable quantity of evidence both for and against the Charter. The result of the inquiry was that Her Majesty Queen Victoria signed the order which granted the

BURSLEM



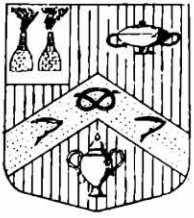
HANLEY ARMS.
[COUNTY BOROUGH.]

LONGTON.



FENTON ARMS.

SEAL OF
STOKE OLD BOROUGH.



TUNSTALL ARMS.

ARMS OF THE
FEDERATED BOROUGH.

For information see overleaf

Arms of the Six Towns at various periods with their scrollwork and decorative supporters. Described in Chapter Six.

They are surmounted by the Arms of the City of Stoke-on-Trent in which portions of the Arms of each town and the Federated Borough are incorporated.

From the Stoke Arms: Motto " To produce beauty from the earth " came the Boar's Head, crest of Colin Minton Campbell.
From Hanley came The Dromedary Crest from the Arms of John Ridgway (first Mayor of Hanley).

From Burslem—motto " Ready "—came the Portland Vase of the Wedgwood family indicating the pottery industry of the district. The Warwick Vase was used in the early unauthorised armorial bearings (illustrated) used by the Local Board of Health. The Scythe came from the Arms of the Sneyd family.

From Tunstall (whose Arms were based on the early Barons Stafford) was taken the Stafford Knot (now known as the Staffordshire Knot). Also represented was the Scythe of the Sneyd's.

From Longton—motto " Let industry be made "—came the Spread Eagle, crest of the Arms of James Glover.

From the Fenton Arms—motto " Onward and Upward "—came The Fretty Cross, thought to record the dependence of Fenton Culvert on the Vernon family in early times.

Charter of Incorporation to the townships of Hanley and Shelton, thus constituting them a Municipal Borough under the common name of Hanley. The date of Incorporation was May 22nd, 1857. The Charter was received at Hanley by Mr. E. Challinor, Solicitor to the memorialists, on Monday, May 25th, 1857, and was read at the Town Hall, Hanley, on the Tuesday evening (May 26th) to the members of the committee which had been appointed by the ratepayers the previous year. The Chief Bailiff was requested to call a meeting of the ratepayers on the following Friday evening and placards were issued for display in the Borough.

The Charter was of considerable length and granted 'all the powers and provisions of an Act passed in the session of Parliament held in the fifth and sixth years of the reign of His late Majesty, King William IV, instituted, 'An Act to provide for the regulation of Municipal Corporations in England and Wales. The corporate body shall be called the mayor, aldermen and burgesses of the Borough of Hanley.' The Charter gave powers for adopting, 'a common seal to serve them in transacting their business and also shall and may use and assume armorial bearings and devices, which shall be duly entered and enrolled in the Herald's College.' It was further declared that, 'the said mayor, aldermen and burgesses, shall be able and capable in law to purchase, take, and acquire lands, tenements, hereditaments, and all other possessions whatsoever, to any value, situate, lying, and being within the said district, and also to purchase, take, and acquire lands, tenements, and hereditaments, and all other possessions elsewhere out of the said district, not exceeding the sum of £10,000 by the year, to have and to hold the said lands . . . . etc., for ever.'

There were to be a mayor, six aldermen, and twenty-four councillors to be elected. The Charter made provision for the Borough to be divided into three wards; the north, east and south wards. The north ward was to comprise that part of the town of Hanley and Shelton beginning at the Fowlea Brook, in Etruria, at the point where is crosses under the Newcastle-under-Lyme and Blythe Marsh turnpike road from Newcastle to Hanley. To this day a rusty iron plaque, marking the boundary, may be seen mounted on a low wall below Etruria station. It was bounded on the west by the Fowlea Brook, in the north by part of the Grange Farm (in the parish of Burslem) to the north-east point of the boundary of the township of Shelton, abutting on the parish of Burslem, and near to the turnpike road leading from Hanley to Burslem, and from that point extending in a southerly direction along the boundary line dividing the township of Shelton from the said parish of Burslem to the brook near the tollgate at the bottom of Hope Street, in Shelton. Then extending in an easterly direction along the same boundary line to the road leading from Sneyd Green to Bryan Street; along this road to the bottom of Union Street, up the centre of the last mentioned street and Abbey Street to High Street (Town Road) along the centre of High Street; crossing the middle of the Upper and Lower Market Squares, through Piccadilly, Broad Street, Snow Hill, round the corner of the property of Mr. Charles Meigh, through Russell Street, and along the turnpike road to the point on the Fowlea Brook first mentioned.

The East Ward was to comprise the following part of the town of Hanley and Shelton, commencing at Botteslow Mill, on the River Trent and passing in a northerly direction along the centre of Occupation Road through land then belonging to the

representatives of Ephraim Chatterly, crossing the Cauldon Canal; along the centre of Charles Street, Parliament Row, High Street, Abbey Street, Union Street, and the road from the bottom of Union Street to Sneyd Green, at the boundary of the township of Hanley; then along the boundary line between the township of Hanley and the parish of Burslem northward to the end of Chell Street; passing in an easterly direction along the same boundary line crossing the road from Hanley to the Birches Head Farm and the Cauldon Canal; to the point where the River Trent intersects such boundary line, and pursuing the course of the River Trent in a southerly direction to Botteslow Mill.

The South Ward was to comprise the remainder of the town of Hanley and Shelton.

The North Ward was to retain nine Councillors. The East Ward nine and the South Ward six Councillors.

Edward Challinor, or in the case of his death John Dimmock, was instructed to make out a list on May 27th, 1857, (to be called the burgess list) of all persons who shall possess the title and rated qualifications required by the Act of Burgesses of the Borough of Hanley, a copy of which list was to be 'fixed on or near the door of the building called the Hanley and Shelton Town Hall,' for eight days. This was done to give all eligible ratepayers the opportunity of seeing that their names appeared as candidates suitable for election and to allow the public generally to object to any person they thought unfit. Burgess rolls were drawn up comprising of burgesses in each of the three wards, which were called 'Ward Lists' and had to be completed by July 13th, 1857, 'And that such burgess roll shall be the burgess roll of the burgesses of the Borough entitled to vote in the choice of councillors, assessors, and auditors of the said Borough and the wards.'

The first election of councillors for the new Borough was to 'be holden,' continued the Charter, 'on the 20th day of July, 1857, and upon the first day of November and on the same day in every succeeding year.' Regarding the election of Mayor, the Charter declared 'the first Mayor of the said Borough shall be elected from and out of the aldermen and councillors—on the twenty-ninth day of July in the present year,' and 'the first election of auditors and assessors for the said borough and the several wards thereof, shall take place on the tenth day of August, in the present year,' and appointed, 'our trusted and well beloved Edwin Allbut, of Hanley, aforesaid gentleman, to act as returning officer at such first election of Mayor, aldermen, and councillors, auditors, and assessors, and at any subsequent election which might take place.'

The Charter had arrived in Hanley. It had been read and the old order was changing and making way for the new. It was then natural that the Hanley and Shelton Townships Commissioners, who had so faithfully served the interests of the townships, should call an immediate meeting, which was held on Thursday, May 28th, 1857. Its main members, already important members of the new Borough and closely concerned with the putting into operation the laws of the new Charter, were present with Mr. Edwin Allbut (chief bailiff of the towns and now Returning Officer of the new Borough) in the chair. The meeting, said Mr. W. H. Yates, was called he supposed—to take some preliminary step with a view to a resignation of their powers as Commissioners into the hands of the authorities to be constituted under the

Charter. They were prepared to resign at the proper moment willingly and cheerfully. So with graciousness and understanding the Commissioners passed into history.

Edward Challinor, solicitor to the promoters of the incorporation movement, who had worked so indefatigably towards securing the Charter, was on August 29th, 1857, elected Town Clerk of the new Borough which he served faithfully until his death on April 25th, 1869.

The first election of the Town Council of Hanley took place on Thursday, August 20th, and the newly elected town councillors for the Borough of Hanley met for the first time in the Town Hall, Fountain Square, Hanley, on Monday, August 24th, 1857, mainly for the purpose of taking oaths of allegiance to Her Majesty Queen Victoria and signing declarations 'not to do aught against the Protestant Religion, nor to deprive the bishops, and clergy of the Church of England, of any of their rights as by law established.' It is interesting to note that of the thirty original members of the corporation, the last to survive was Mr. Samuel Cole, who died on October 24th, 1906. At this meeting Edwin Allbut, the Chief Bailiff, presided. The Council, he said, was not yet complete, and therefore it could not formally enter upon the transaction of business. The meeting was historic in so much that the unofficial business conducted at this first meeting, was probably the last conducted by a Chief Bailiff of Hanley, who was soon to be out of office. It marked the end of an era. His last duty was to comment on the expulsion of several labourers from old railway carriages which they had used as cottages in fields owned by the Reverend Armitstead, near Shelton Church. This caused such interest that a public meeting was also held on Crown Bank, Hanley, on that very evening. The other matter mentioned was that, as a result of an application made in June for a Russian Trophy for the town of Hanley, the Secretary of State for War had sent two guns which were awaiting collection at Stoke Station. The Chief Bailiff suggested that his successor, on appointment as the first Mayor of Hanley, which would be made on Saturday, August 29th, should lead the entire new council in procession, with the guns, on the following Monday.

At the meeting held in the Town Hall on Saturday, August 29th, Mr. John Ridgway was elected first Mayor of Hanley. Six Aldermen were also elected and on September 1st further Councillors were elected to fill the vacancies caused by the election of the Aldermen. John Ridgway who was re-elected in November of the same year, was the eldest son of Job Ridgway who is remembered as one of the founders of Bethesda Church, Hanley, and also of the Methodist New Connexion. Like his father his life was spent in good works and this phrase may be applied not only to the church but at his manufactory and his home at Cauldon Place and as a colliery owner. He was a Justice of the Peace, a local preacher and educationalist. Above all he was a devout Christian and on his retirement his workpeople presented him with a richly bound Bible, the greatest gift they could give him. He served the new Hanley Council faithfully and died in December 1860, in his 75th year, after speaking at an important church meeting at Bethesda Church School. A reminder of John Ridgway may be found in the arms of the City of Stoke-on-Trent, in the form of a kneeling camel which was his armorial sign.

The important question of the Corporate Seal of Hanley was dealt with in

December 1857 and a design by a Mr. G. T. Robinson of Leamington was accepted. The design was of an unusual type apparently somewhat meaningless, but when explained it was seen to be full of local history. There was no official grant from the College of Arms. Burslem was the only township to register at the College of Arms proper armorial bearings. The Hanley arms was composed of 'an intricate shield displaying three quarterings joined together in a form unknown to English heraldry.' These quarterings represented the three wards of the new Borough containing within its limits three places of importance, namely Hanley, Shelton and Etruria. The first quarter represents the armorial insignia of Hanley, and is composed of six alternate bands of gold and ermine, surmounted by three ewers. The groundwork of this portion was, in the main, the arms of the Bagnall family who in late medieaval times were the Lords of Hanley. A rampant lion had embellished the bars of gold and ermine. The designer had substituted the ewers for the lion as being more suited to portray the industry of the district.

The second division of the shield bears the arms of Shelton and is adapted from those of the poet, Elijah Fenton, who was born at Shelton Old Hall. The Fentons had long been resident in Shelton and were Lords of the Manor, but for a tragic fire, which occurred on May 22nd, 1853, this beautiful old hall, a large irregular, half-timbered, thatched building, might still have been the greatest architectural treasure in the present city. The escutcheon, or coat-of-arms, of the Fenton's was ermine, a cross voided sable between four fleur-de-lys sable. In the new arms of Hanley, the four fleur-de-lys were replaced by four flaming iron furnaces, indicating the blast furnaces of Shelton and the pig iron trade which flourished in the district at that period, there being a large number of iron works to be found throughout the Potteries.

The lower division relates to Etruria. Here the arms of Wedgwood were used, a compliment to its illustrious founder. The only alteration to these arms was to omit the individuality of the 'silver canton.'

Thus the three portions were united in one shield, above which was placed the crest of the Ridgway family—a rising camel charged with the cross of St. George—in honour of the first Mayor, and the whole of the escutcheon was surrounded by a cord tied in four places by Staffordshire knots.

In the original design the shield was surmounted by the royal crown and it was suggested, at the meeting in Council, that the design should be sent to the Heralds College for approval. It was pointed out that the cost would be in the region of £80, whereupon Alderman Wedgwood said he would drop all that heraldic nonsense, and have simply, Borough of Hanley Corporate Seal, but the Town Clerk was doubtful whether the Heralds' College would enrol such a device. It was also suggested that the Portland Vase be substituted for the ewers. Eventually the design was accepted subject to possible alterations. However, the four iron furnaces in flame are usually described as, 'four pot-ovens flammant.'

The most notable of the Mayoral chains was presented to the Hanley Corporation by Mr. Herbert Keeling, of Shelton Hall, to commemorate the Jubilee of Queen Victoria, in October, 1887.

Spurred on by the example set by Hanley, Longton became a Board of Health

District, but it was not until 1865 that Longton and Lane End were incorporated as the Borough of Longton. In March 1863, a meeting was held in the covered market, Longton, for the purpose of considering the decision of the guardians of the parish of Stoke with reference to the Small Tenements Rating Act and also to excessive expenditure on the Longton Towns' rates. The Chief Bailiff (Mr. W. Bateman) thought the time had come when people of Longton should adopt the whole of the Local Government Act and it was decided at this meeting that the churchwardens should call a public meeting to consider this. The outcome of this meeting was that a Charter of Incorporation was considered highly desirable and was the wish of the people. In September 1864, a Government Inquiry was held at the Court House, Longton, for the purpose of taking evidence in support of a petition in favour of a Charter of Incorporation for Longton. The district then under consideration was the town of Longton, Meir and Lane End. Lane End was that district at the north end of the lane from the Meir and known as such until the early part of the nineteenth century, but which at the period concerned in the Charter (1864) was regarded as part of Longton. The population of the district had risen from 500 in 1738 to 16,686, in 1861. The growing importance of the area had led to the amalgamation of Longton, Meir and Lane End in 1839 and was governed by Improvement Commissioners with a Chief Bailiff and Constables. Prior to 1839, the business of the town had been conducted under the Select Vestries Act. The Act of 1839 provided powers for improving, cleansing and better lighting. This had been a great improvement, as hitherto the town had not been sufficiently 'watched' and robberies and disturbances were frequent. The rateable value of the property in the two townships, like the population, had also increased. In 1833 it had been £5,983 and at that time there was no assessment at all except upon buildings. By 1854 the rateable value had increased to £24,909 and the ratepayers numbered 2,904, whilst by 1864, the value had reached £37,285 and the number of ratepayers was 3,805. It had been of considerable advantage when, in 1859, the Improvement Commissioners adopted part of the Local Government Act. Nevertheless it was felt that the time had come for Incorporation, especially as there was no opposition to the project and that the Commissioners were not carrying out their duties fully. Although there were ninety Commissioners, an average of only ten attended the monthly meetings and only about twelve were considered working members. Strongly supported by the ratepayers and public generally, the Charter of Incorporation was granted on April 3rd, 1865, with James Glover as its first Mayor. Alderman Alfred Bailey Jones was the last Mayor before the Federation of the six towns.

The Borough Seal, or the Arms, of Longton are of historic interest. It arrived in Longton in November, 1865, whilst a council meeting was taking place and a few minutes after a letter had been read from Mr. John Edensor Heathcote who said he was much flattered by the intention of the Town Council to incorporate his arms in the borough seal. At this period Mr. Heathcote was living at Longton Hall, a large brick built mansion in the Queen Anne style of architecture. His marriage to a member of the Sandford family resulted in the new corporation making use of the arms of both in the borough seal. The crest of the arms of James Glover, who was the first Mayor, surmounted the whole design. Mr. T. Pape gives this description

of the Arms of Longton:-

'Per pale, the dexter side quarterly one and four ermine three pomeis vert each charged with a cross or (for Heathcote); two argent a chevron between three horseshoes sable (for Edensor); three, vairy ermine and gules, a canton chequy (for Gresley); the sinister side quarterly, one and four quarterly, per fesse indented ermine and azure; two and three, party per chevron sable and ermine, in chief two boars' heads couped or (all for Sandford). Crest an eagle displayed argent, charged on the breast with three ermine spots. Supporters: on the dexter side a potter habited and with an apron, holding in his exterior hand a vase, and on the sinister side a miner habited holding over his sinister shoulder a pickaxe, presumably all proper.'

Mr. Pape also quotes Mr. A. C. Fox-Davies, an authority on armorial bearings, as saying. 'The absurd display affected by Fenton, Hanley . . . Longton, Stoke-upon-Trent can only be objects of ridicule to anyone having the least heraldic knowledge.'

The next Potteries town to become Incorporated as a Borough was Stoke. This new administrative borough was of course distinct from the Parliamentary Borough of Stoke-upon-Trent, which was incorporated by the Reform Bill passed in 1832, for the purpose of sending two representatives to Parliament from the district of the Potteries. The date of Incorporation was January 1st, 1874, when the townships of Penkhull and Boothen were incorporated into the Borough of Stoke-upon-Trent. The election of the Town Council took place on March 3rd, 1874, and Alderman W. Keary was elected first Mayor, together with Aldermen on March 11th. As in other towns the Commissioners were superseded by the formation of the new council. Following tradition the new borough set about acquiring a coat of arms as the corporation seal and a neat design was chosen bearing the date 1874 and surrounded by the words 'The Seal of the Corporation of Stoke-upon-Trent.' The seal incorporated sections of the armorial bearings of the Copeland, Minton, Campbell and Keary families. The shield, divided in the centre, indicates the oven of the potter from which flames issue (reminiscent of the early salt glaze methods in which considerable flame was required), set between three pottery jugs above which is an illustration of an early potter's wheel. On the right hand (or sinister) side of the shield, are three coats-of-arms. One three roses on a bend sable appropriate to William Keary, first Mayor of the town. Secondly a portion within two ermine bars three garbs, a tiger above and a tiger below for Thomas Minton, and thirdly two red bars on a golden back cloth, at the top of which are three green trefoils, over all a bend on which are three boars' heads, part of the arms of R. P. Copeland. Above the shield is a boar's head, the crest of the arms of Colin Minton Campbell, then Member of Parliament for North Staffordshire, whilst below the boar's head was the motto, 'E terris dare artem.' It was Colin Minton Campbell who presented a Mayoral chain to the borough in 1874 and who, as Alderman Campbell, became Mayor in the years 1880-1881, 1881-1882 and 1882-1883.

Burslem, the Mother Town of the Potteries was granted a Charter of Incorporation on June 27th, 1878 and on August 28th Thomas Hulme, of Dunwood Hall, was elected first Mayor of the town.

The Burslem Local Board of Health held its last meeting on August 14th, 1878 and this Board, with its early minute books complete with official red seal, passed into

history. This red wafer seal is worthy of mention. It took the form of a quartered shield, the first and fourth quarters showing, 'a piece of pottery, like a soup-tureen without the cover.' The second quarter, 'a scythe with a fleur-de-lys at the fesse point,' and the third section, 'a fret,' and bearing a border description of Local Board of Health of Burslem. Mr. T. Pape says that 'no doubt this represents the seal adopted without authority in 1850 and is one of the earliest seals for any of the Potteries townships, and that they evidently knew that in the Domesday Survey their ville was owned by Baron Stafford and that later it was transferred to Henry de Audley, and in Elizabeth's time Ralph Sneyd was Lord of the Manor.' The new Town Council had an impressive list of officials, ranging from Mayor to the Town Crier (Joseph Moore, of Peel Street). Some idea of the services covered by the new and efficient public body may be gleaned from the fact that there was a Town Clerk, Surveyor and Engineer, Medical Officer of Health, Borough Accountant, Gas Manager, Gas Collector, Rate Collector, Cemetery Registrar, Inspector of Nuisances, Librarian, Town Hall Keeper and Mayor's Sergeant, Auditors, Inspector of Lodging Houses, Inspector of Markets, a Collector of Tolls and a Superintendent of Fire Brigade.

With perhaps more of an eligibility to bear arms than some of the other towns which constituted the Potteries, it was desirable that the new borough should obtain, without delay, a design for their official seal. The Armorial Bearings, submitted with the approval of the Garter King at Arms, were accepted by a resolution put before the council on August 28th, 1878. The new coat of arms was based on that of the Board of Health and was probably more authentic than those of the other towns, which had been so scathingly ridiculed by an expert in arms at a later date. The shield was divided into four quarters crested by a wreath of the colours in front of a garb, or a fleur-de-lys, between two branches of laurel. Beneath the shield was the motto 'Ready.' The first and fourth quarters of the shield depicted the famous Portland Vase. These depict the local industry with an obvious reference to the Wedgwood family. The second quarter showed a scythe emblem of the Sneyd family and the third section 'a fret couped argent,' representing the Audley family. It is said that the red fleur-de-lys, in front of the yellow garb which surmounted the shield, was the crest of Thomas Hulme, Burslem's first Mayor. The Arms of Burslem were granted on October 8th, 1878.

Tunstall and Fenton possessed no Charters of Incorporation and did not therefore have the Mayoral office. Both, however, had their own seal or arms. Tunstall, at the period when other towns were asking for Incorporation, was governed by a Local Board of Health, headed by a Chairman and Chief Bailiff, the first of which was Mr. Enoch Wedgwood, appointed in 1855. The office of Chief Bailiff, in Tunstall, dated from 1816, its original responsibilities being the maintenance of law and order. The last of these was Mr. George Wilks, in 1894, when by the provisions of the Local Government Act of that year, the Local Board was replaced by an Urban District Council, with Mr. George Wilks as its first Chairman and Chief Bailiff. In April, of the year 1897, a chain of office, which was to commemorate Queen Victoria's Diamond Jubilee, was presented to the Council by Mr. W. Boulton, who was Chief Bailiff, 1896-1897. The last person to hold the dual office of Chairman of the Council and Chief Bailiff was Mr. Arthur Price, appointed in 1909, one year

before Federation of the Towns of the Potteries, a measure that, up to 1908, had been strongly opposed by the Tunstall Council. The urban district of Tunstall was extended by the addition of a further portion of the parish of Chell and also part of the parish of Goldenhill in 1904.

Although Tunstall had no authority for its armorial bearings such a seal came into use, probably as Mr. Pape thinks, in 1866, when the Tunstall Burial Board was formed. The Board was using this seal which comprised a simple shield forming a red background on which was placed a gold chevron. On this chevron was the Staffordshire Knot set between two scythes. The knot represented the well known section of the arms of the Stafford family and the scythes that of the Sneyd family and their association with the Manor of Tunstall. In the top left hand corner of the shield, set on a white background, two 'bottle' kiln pottery ovens were shown, once again, conveying the staple industry of the district, whilst to the right is an elegant soup-tureen and at the foot a shapely vase. Thus the pottery industry was well represented in the Arms of Tunstall.

Fenton, until 1873 when a Local Board of Health was formed, was governed by Chief Bailiffs or Head Constables who were appointed Commissioners. This was brought about by the Parliamentary Act of 1839, which made the two townships of Fenton Culvert (Great Fenton) and Fenton Vivian (Little Fenton) into one district. The Commissioners saw to it that the town was 'effectively policed and lighted and cleansed.' Unfortunately many of the early records of the Commissioners at Fenton were destroyed on August 15th, 1842, during the Chartists Riots when a wild mob of people broke into the police station.

The Commissioners at Fenton passed into history in 1873, when the Local Board of Health was formed. Its first chairman was Mr. Joseph Gimson and the last Mr. Edward Hughes. In 1894 the authority became an Urban District Council holding the first council meeting on December 31st 1894, with Mr. Elijah Brain in the chair. The last chairman to be appointed was Mr. Philip Elliott in April 1906. Fenton, whilst perhaps at no time having the publicity and prominence of the other five towns, was in many ways equally important and it, too, was to have its armorial bearings. These were adopted about the year 1840. Like those of most of the towns they were unofficial so far as the College of Arms (or Heralds' College) was concerned. The arms consisted of a plain shield on which the various industries of the district were illustrated in a pleasingly simple manner, the whole being surmounted by a crest in the form of a goat's head, part of the arms of William Baker, a Chief Bailiff of Fenton in 1840 and a prominent pottery manufacturer in Queen Street, Fenton, and whose coat of arms may be seen at the top of a two-light window on the north side of Fenton Church. The shield divided into four quarters, separated by a fretty cross, shows a soup-tureen, bottle ovens (from which smoke billows), colliery pit-head gear and in the bottom right quarter, a sheaf of corn placed before a plough. This last named is a most interesting and significant link with the time when the fields of Fenton were giving way to the ever encroaching industries. The motto of the arms of Fenton was 'Onward and Upward.'

In 1835, Ralph Bourne left land in trust with John Baker, his nephew, 'for the site of a church and cemetery.' In January, 1839, the church was consecrated, the

balance of the cost of erection having been defrayed by Mrs. M. Baker, who was until marriage a Miss Bourne. Years later, in 1890, the foundation stone of a new parish church, costing £7,500 was laid, and in October, 1891, the church was consecrated by the Archbishop of York.

In the first complete year of the Commissioners' government the expenditure was under £600, but the expenditure of the Urban District Council for the year ended March 31st, 1909, just before Federation, was almost £50,000! One of the projects carried out in 1887 was a cemetery at a cost of £8,400 covering 16½ acres of ground. In 1888, Mr. William Baker, a member of a family long concerned with the welfare of the town, built the Town Hall and offices at a cost of £6,000 and leased them to the Board of Health.The buildings were subsequently purchased by the Council. In the same year Mr. Baker inaugurated a street-making scheme. In 1906, the Free Library at Fenton, built by the generosity of Mr. Andrew Carnegie, was opened. The Manor Street School was opened in 1909 and an original scheme for making Fenton Park was initiated as a last act by the Urban Council on the eve of Federation.

As forms of government were changing, so were boundaries. The year 1865 had seen Longton and Lane End incorporated into the Borough of Longton. Penkhull and Boothen were joined to the Borough of Stoke-upon-Trent in 1874. East Vale, a residential area, was added to Longton in 1883, followed by Florence and Dresden a year later. In 1890, Burslem requested that parts of Abbey Hulton, Chatterley, Chesterton and Wolstanton should be added to the Borough, and at a Local Court of Inquiry, held in February 1891, an alteration of the boundaries was made to include a portion of the Lordship of Abbey Hulton.

Parliamentary boundaries were also changing. In 1885, under the redistribution of Parliamentary Seats Act, the Parliamentary Borough of Stoke-upon-Trent was divided. The Boroughs of Hanley and Burslem together were to return one member and the Boroughs of Stoke and Longton, along with the Local Board of Health of Fenton, were to return one member. Tunstall was, for Parliamentary purposes, in the Borough of Newcastle, and did not join Stoke-upon-Trent for this purpose until Federation of the Six Towns in 1910. In 1899, the Urban District of Tunstall was extended by the addition of part of the parish of Chell (Pittshill) and later in 1904, by a further portion of the parish of Chell and part of the parish of Goldenhill. For the purpose of electing representatives to the Staffordshire County Council, Goldenhill and Chell had been linked with Tunstall in 1888. Smallthorne, like Tunstall and Fenton, had become an Urban District by the Local Government Act of 1894, and had its own Council. All that part of the parish of Burslem, beyond the boundaries of the actual Borough of Burslem, became a separate parish of Milton in 1894 and Hanley, constituted a separate parish, was incorporated into the Stoke-upon-Trent Poor Law Union.

The alterations and extensions to the boundaries was often brought about by the Staffordshire County Council for some of its members had been elected from some of the townships and districts of the Potteries. For example, parts of Goldenhill and Newchapel were transferred to the Kidsgrove Urban District, by an order of the Council dated February 15th, 1902, whilst Milton and part of Chell went to Smallthorne. Also during this year an application by the Borough of Stoke-upon-Trent,

to include the area known as Basford Park, was turned down by the Local Government Board. In 1905, Birches Head and part of Sneyd Green was added to the County Borough of Hanley. So it seemed that the Six Towns of the Potteries, together with the outlying districts, were ever seeking to increase their boundaries and to gain more power for themselves, each casting covetous eyes on its neighbour. It resulted in a competition that was not always healthy. There was little desire for unity. Today, with the golden jubilee of the federation of the six towns upon us, we know that unity is strength and that the Latin motto of the City of Stoke-on-Trent, 'Vis unita fortior' (United strength is stronger) is true and could only have been realised by federation of the Pottery towns to give a centralised government.

Federation

The proposition that some form of a central government for the towns of the Potteries should be adopted was by no means a new idea. The Staffordshire Potteries had become a Parliamentary Borough in 1832, which unified the district from a political point of view. It pointed the way towards a central local government and on January 9th, 1834, His Majesty's Commissioners attended a meeting to discuss the matter, but most of the towns considered that their Improvement Acts covered all their requirements and that such a form of government was not suited to 'a chain of towns and villages extending into three parishes, and into nearly twenty townships and manorial liberties.' These varied greatly in their size and population. The germ of the idea lay dormant until 1888, when a revival of the movement was brought about in the form of a 'County of the Potteries,' a form of government which would share powers between the various towns and a 'County Council' of North Staffordshire. Local councils appointed suitable members to discuss the matter of this Local Government Bill of March, 1888. All but Tunstall took interest in the scheme sponsored by Mr. C. Ritchie, President of the Local Government Board. Matters seemed to be progressing in the right direction when Hanley Town Council decided to drop the idea of amalgamation, a descision made by a narrow margin of votes, although Tunstall eventually showed more interest and supported the idea of federation.

Towns with a population of 50,000 could gain County Borough status. As Hanley had a population of over 50,000 it decided to claim its own rights to County Borough status. The election of the Staffordshire County Councillors took place on January 24th, 1889, and Tunstall remained part of the County Council. The remainder of the six towns, Stoke, Fenton, Burslem and Longton, still favoured the county scheme, but Hanley was the stumbling block. Despite this Longton decided to press forward with plans for constituting Stoke, Fenton and Longton a County Borough. The scheme failed and once more the idea of some form of federation was shelved.

One of the next references to this vital question was made in 1895, by the Duke of Sutherland, Mayor of Longton. Referring to the district he said. 'Its towns are divided into one County Borough, Hanley, three other Boroughs, Stoke, Longton and Burslem, two Urban Districts, Fenton and Tunstall, with several other Urban Districts on the outskirts . . . the district is practically one, and there need be no difficulties in the way of union beyond the initial ones. I would commend the idea for their

consideration.' The Duke was a man who had a profound influence on the district and whose utterances were respected and commanded considerable attention. The 'idea' he was commending was however a thorny problem and each town was jealous of its own form of government and personality and did not desire advice from 'Neck End' (Longton) or even from so distinguished a man as the Duke himself. Each town went about its own business and Hanley, aloof, set about altering its ward system with little thought for federation. In consequence of a petition by the Hanley Council to Queen Victoria on June 29th of that same year (1895), the Borough was divided into eight wards instead of three decided by the Charter of Incorporation in 1857. In the new eight wards the boundaries were decided by a Commissioner appointed by the Home Secretary. Twenty-four new councillors held office, three for each ward, one of whom from each ward was to retire each year.

Two years later, on June 23rd, 1897, further thoughts of possible federation were obscured in the excitement of Queen Victoria's Diamond Jubilee celebrations and a visit to Buckingham Palace by the Mayors of Hanley, Stoke, Burslem and Longton. The Queen received them and conferred on each a Jubilee Decoration, in the form of a diamond shaped medal. Indeed, in Hanley, this excitement had been almost too much for the Mayor, Moses Tunnicliffe, thrice Mayor of Hanley, who had on the previous day, opened the new Hanley Park and dealt with the dispersal of £1,812 raised to celebrate the Jubilee.

The way of Federation was indeed hard and the Duke of Sutherland's earnest exhortations were further drowned by the sound of battle, when in October, 1899, many men of the six towns took their part in the Boer War, in South Africa. A great number of men volunteered for active service and army reservists, from Hanley, were called upon to rejoin their regiments. Further distractions, were the death of the Queen, the proclamation of Edward, Prince of Wales, as King, and the Coronation of King Edward VII and Queen Alexandra. The coronation ceremony, on August 9th, 1902, was attended by the Mayor of Hanley, Alderman Herbert Coates, who received a commemorative decoration in the form of a silver medal.

In this same year, 1902, Sir Hugh Owen, the municipal and financial expert, was engaged to advise a joint committee, which had been set up to go into the question of federation. This committee included representatives from Hanley, Burslem, Longton, Stoke and Fenton. Sir Hugh drew up a scheme, not dissimilar from that eventually embodied in the Provisional Order issued by the Local Government Board in 1908, and subsequently submitted to the House of Commons. An application to the Local Government Board in favour of the federation of the boroughs of Hanley, Longton, Burslem, Newcastle and Stoke, the Urban Districts of Tunstall and Fenton and many of the outlying areas was prepared, but local jealousies re-asserted themselves with the result that Hanley and Longton alone signed and sealed it. The application was lodged, but the ratepayers of Burslem decided by ballot overwhelmingly against the proposals (2,670 to 457) which were withdrawn. As Burslem was considered of major importance to the scheme, Stoke decided to abandon the idea, and so did Fenton. Thus the resolution of 1901 followed tradition and was abandoned in 1903.

Federation was, even after this serious blow, not dead because a revival came in 1906. This time Longton initiated a proposal to unite the Parliamentary Borough of Stoke-

upon-Trent (Stoke, Lonton and Fenton) into one County Borough. A local inquiry was held by Major C. E. Norton, the Local Government Board's Inspector, at Stoke in 1907. The Board expressed the opinion, through Mr. J. Burns M.P., President of the Board, that federation should embrace a larger area and urged that six areas should be included in the interests of economy and efficiency. Conferences, attended by representatives of all authorities except Tunstall, ensued, when an endeavor was made to find a generally agreed basis of financial adjustment which seemed to be the main stumbling block to federation. In the end, the generally accepted scheme was that known as Alderman Geen's scheme—a proposal that each town be a separate rating area for twenty years. Hanley was in favour of complete federation and had almost invariably supported the proposals made from time to time. Hanley was a leading and progressive town of the Potteries and was the first town to be granted a Charter of Incorporation.

Let us take a look at Hanley and the district at this federation period. Hanley in 1905 had a population of about 64,000 and a rateable value about £240,000. although it was the smallest of all the Pottery towns in area (1,767 acres) it was the chief of the six towns and had the largest population, the nearest being Burslem with a population of 38,766, but spread over a larger area (2,585 acres). Longton was next with a population of 35,835 (1,934 acres), Stoke 30,450 (1,881 acres), whilst that of Tunstall (1908) was 26,500 (1,750 acres). Hanley could surely be classed as the principal town of the Potteries. It was one of the four county boroughs in the County of Stafford at that period and had its own Court of Quarter Sessions presided over by its own Recorder. It had adopted most of the Health Acts as well as the Housing of the Working Classes Act, the Museums and Gymnasiums Act and the Free Library Act. It was included in the Stoke-upon-Trent Union.

Hanley had provided an electricity works, a public library, a school of art, had established a complete tramway system and also an excellent sewage system. Its water was provided by the Potteries Water Works. All these advantages were shared by people living immediately on the borders of Hanley. The Borough was financially sound having assets over its liabilities and was building about 360 new houses a year in the period from 1900 to 1907. The population in Hanley averaged 36 to the acre, Burslem 13, Stoke 16, and Longton 18. Small wonder then that in 1905 Hanley was involved in an inquiry for the extension of the boundary of the Borough of Hanley to include part of the Parish of Milton, which includes Birches Head and part of Sneyd Green and part of the Parish of Stoke in the Rural District of Stoke-upon-Trent, which included Botteslow and Berry Hill. Hanley gained the former but not the latter. Small wonder too that Hanley supported Federation at the memorable meeting held at the North Stafford Hotel, in July, 1907. Hanley did have the idea at first that Federation would mean the adding of the other towns to Hanley, but it did not come about that way, although it was the Hanley Charter that was extended so as to form the basis of the County Borough and the City of Stoke-on-Trent.

A further Local Government Board of Inquiry, under the Presidency of Major C. E. Norton, took place at the North Stafford Hotel, beginning on January 8th, 1908 and closing three days later. Hanley, Longton and Stoke were in favour of the proposals for federation, but Fenton and the Staffordshire County Council opposed them. Tunstall

decided to 'play a waiting game' and to offer no opposition to the scheme. Burslem had dramatically withdrawn from the inquiry at the very outset. Their Counsel protested against Major Norton holding the inquiry on the grounds that he had already expressed himself favourably to the principle of federation. The inquiry continued with Alderman Geen's (Stoke) Scheme as the basis for discussion although Hanley did not favour his methods of financial adjustment. To the surprise of many, Hanley, on the second day, produced an eleventh hour scheme through Mr. Walton Stanley. The new proposal, briefly, was that there should be a flat and also a differential rate, and that, by means of the latter, the existing differences should be adjusted within a period of about ten years. The scheme was practically Sir Hugh Owen's Scheme of 1902.

On February 23rd, 1908, the Local Government Board issued their Provisional Order for the federation of the six towns, and, as was expected, the financial scheme proposed was none of those set forward at the inquiry. Although chiefly on the lines of the Hanley proposals, it provided that those towns, which on a valuation were shown to have a deficiency of assets should pay the amount of their deficiency into a common fund over a period not exceeding twenty years. The scheme was accepted by Hanley, Longton and Tunstall Councils, but was strongly objected to by Burslem, Stoke and Fenton.

The Bill went before the House of Commons Select Committee, sitting in Room 9, on Thursday, July 2nd, 1908. The details of the Potteries Federation Bill, as it was known, ran to great lengths. A map measuring twenty-five feet by fifteen feet hung on the wall. The six towns, Hanley, Longton, Stoke, Burslem, Tunstall and Fenton, were depicted in different colours. The supporters of the Bill, Hanley, Longton and Tunstall, had four Counsel between them, whilst numerous Counsel represented the interests of the opposition, which included the Staffordshire County Council, the Burslem and Stoke Town Councils, the North Staffordshire Railway Company, certain property owners, manufacturers and ratepayers of Tunstall, in addition to the Longton Magistrates and the Coroner for North West Staffordshire.

The first day opened with the case for the Promoters of the Bill. Many people spoke and many questions were asked on all aspects of the present local government and life in the six towns of the Potteries. On the fourth day, Wednesday, July 8th, at 11-30, the case for the opposition was opened. The Select Committee made various amendments to the Bill on July 27th. On July 28th, the House of Commons passed the third reading. Of the amendments made by the Committee, the chief concerned the financial basis of adjustment, a differential rating for ten years being introduced. This provided that in the ensuing ten years, the rates of the six towns should be *pro rata* what they had averaged for a period of three years. Those towns, which on a valuation were shown to have a deficiency of net assets, were, in addition, to make an annual payment to the common fund. The result would be that if a town had an excess of net assets it was to pay the same rates, proportionately, as its mean rates for the previous three years, but it was to receive no credit for its excess of assets. If, however, a town had a deficiency of assets, it was to contribute rates on the basis of the average for the three years, plus an annual payment of one-tenth of its deficiency of assets. This adjustment was to depend upon the valuation of each town's properties and liabilities, and the Bill, was amended, provided that in calculating assets all floating capital and floating assets,

gas and electricity works, public halls and buildings, parks and recreation grounds, and sewage works, were to be included, but not street improvements, or paving.

It was said that the Bill, as amended, pleased none of the parties, and so in the dark and dreary days of the following November and December, the contestants met once more at Westminster for the final struggle. A most difficult period was experienced in trying to satisfy all the parties concerned and they were eventually faced with the alternative of arranging their own terms or asking the Committee to decide them. An agreement was eventually reached and the terms were submitted to their Lordships on December 16th, and approved by them. The basis of settlement was a compromise between the original scheme of different rating areas, put forward by Stoke, and the latest scheme of a flat rate and gas and electricity at cost price, submitted by Burslem, Hanley and Longton. The agreed basis provided that for twenty years the expenditure entered upon for its coming into operation of the Order should be paid for by means of differential rating, based on the proportion of the rates levied in the several districts for the three years ending March, 1907. Further, all existing loans were to be discharged by the respective districts, except that the balance of loans for main road improvements remaining unpaid at the end of twenty years were to become a common charge. By this scheme no valuation of any sort was necessary and the gas and electricity works were to be converted into non-productive undertakings by charging gas and electricity at cost price, after allowing for the payment of loans and the provision of sinking and reserve funds.

The various amendments to the Bill were finally approved by the Lord's Committee on December 19th, and passed by the House of Lords on that day. The Bill received Royal assent on December 21st, 1908.

One feels that it will not be out of place, to present a list of dated events which will help the reader to follow the major proportion of this chapter on local government. It is as follows :—

1813. The townships of Hanley and Shelton constituted a market town by an Act of Parliament which gave authority for establishing and regulating the market and for enlarging and improving the Market Place at Hanley.
1817. The earliest suggestions for the amalgamation of the Potteries.
1839. A second proposal for amalgamation made and defeated by the opposition of Burslem.
1855. Tunstall Local Board of Health formed.
1857. Hanley and Shelton granted a Charter of Incorporation and so becoming the Borough of Hanley.
1865. Longton incorporated as a Borough.
1873. Fenton Local Board of Health formed.
1874. Stoke-upon-Trent incorporated as a Borough.
1878. Burslem granted Charter of Incorporation.
1888. Unsuccessful attempt to constitute the Potteries as a separate county—the 'County of the Potteries.'
1888. Hanley constituted as a County Borough.
1894. Tunstall Urban District Council formed.
1894. Fenton Urban District Council formed.

1901. Stoke Corporation initiated the scheme to federate the Potteries, Newcastle, and the surrounding districts.
1902. Representations made to the Local Government Board by Hanley and Longton in favour of that scheme and afterwards withdrawn.
1906. Longton Corporation initiated the 'three towns federation scheme.'
1907. Local Governments Board Inquiry at Stoke with regard to this scheme.
1907. Mr. John Burns, President of the Local Government Board, in July addressed the six local councils and advocated the final six towns scheme.
1908. January 8th, 9th, and 10th. Local Government Inquiry at Stoke, on the question of federation.
1908. July 2nd. Proceedings before the House of Commons Committee opened.
1908. July 27th. Federation Bill amended and passed by the House of Commons Committee.
1908. November 24th. Proceedings before the Lord's Committee on the Federation Bill opened.
1908. December 19th. Bill amended and passed by the Lord's Committee, read a third time in the House of Lords, and finally passed.
1908. December 21st. Bill received Royal Assent.
1910. March 31st. Federation Act came into operation and Stoke-on-Trent County Borough Council met for the first time.

With the coming of Federation the town of Stoke-upon-Trent, in common with the other five towns, became merged together under the same name of the County Borough of Stoke-on-Trent. Thursday, March 31st, 1910, was a date of historical interest in the Potteries. It was the day on which the unification of the six towns became an accomplished fact. The six communities had ceased to have separate existence and their Councils were dissolved. The number of Councillors for the new Borough was to be 78 and the number of Aldermen 26, a total of 104. The first election of Councillors, three for each of the 26 wards, took place on March 22nd, 1910.

The new Council met for the first time on Thursday, March 31st. By the direction of the Local Government Board, who had in view the controversial question of the centre of government, the inaugural meeting took place on neutral ground at the North Stafford Hotel, Stoke. Major Cecil Wedgwood presiding as Acting Mayor of the new Borough. He was elected first Mayor. Mr. E. B. Sharpley, formerly Town Clerk of Tynemouth, became the first Town Clerk of Stoke-on-Trent. He was a dignified figure and was a remarkable Town Clerk in many ways. The question of a municipal centre was one that claimed the attention of the public immediately following Federation and although a handsome Council Chamber was ready for the members of the new Council, it was decided that they should pay a series of visits to the six towns—holding a Council Meeting in each. On October 27th, when the Council visited Stoke, they found that the new municipal buildings, which at that time were being erected, were sufficiently complete to permit the meeting being held in the 'gorgeously-decorated and elaborately furnished chamber,' which was to be the future meeting place of the Council. A motion by Alderman Wilcox Edge, a worthy of that period, resulted in the new buildings at Stoke being chosen for the new home of the municipal government. At the same time, Hanley was chosen for the education

offices and police headquarters. It was also decided, under pressure of public opinion, that each of the six towns should bear the financial burdens occasioned by the erection of their public buildings.

Naturally the expenditure of federation was heavy and the cost of carrying it out was about £27,000, whilst compensation to displaced officials was a large additional sum of money. These heavy compensation expenses, coupled with the fact that the general administrative policy of the council had not shown the economies which were anticipated resulted in a considerably increased rate.

The increases, as compared with the rates levied by the old authorities, showed a variation of between 2d., in Stoke to 1s.4½d. in Fenton (which never really favoured federation), whilst Hanley had the dubious distinction of being the highest rated town in the whole of the country at that time, where the rates for the year 1910 were approximately 1s.1d. higher than under the old Hanley Corporation. A report, presented by the Finance Committee to the Potteries Federated Borough (County Borough of Stoke-on-Trent) in May, 1910, showed that rates would be levied to raise £254,629 for the year ending 31st March, 1911. The six towns had to pay the general expenses and the common loan charges, in the proportions fixed by the Federation Act, namely:-

Hanley ...	100	Burslem ...	94	Stoke ...	87
Longton ...	86	Tunstall ...	86	Fenton ...	79

It is interesting to note that in 1910 a penny rate produced £44 from Goldenhill, £217 from Tunstall, £500 from Burslem, £907 from Hanley, £461 from Stoke, £439 from Longton and £375 from Fenton. As the sum of £254,629 had to be raised in the first full year under Federation, a penny rate was of course insufficient and the sum required resulted in the levy of the following rate in the pound:-

Tunstall	88.7d.	Burslem ...	91.1d.	Hanley ...	95.9d.
Stoke ...	81.8d.	Fenton ...	72d.	Longton ...	89d.

Already mentioned is the fact that the first meeting of the new council took place in the Assembly Hall of the North Stafford Hotel, Stoke, at noon on Thursday, 31st March, 1910. Outside, in brilliant sunshine, the town of Stoke was at its gayest, being bedecked with flags for the occasion. At the hotel, flags floated from the flagstaff and from the windows, while long lines of streamers had been hung along the front of the building. Long before the appointed time for the council meeting members began to arrive, the first two being Mr. Walton Stanley and Mr. Sampson Walker. At 11-30 a.m., the Council Chamber was cleared and a photograph was taken of the room as it appeared before the meeting began, by Mr. Harrison of Newcastle. The first official photograph of the new council was made by Mr. Gover of Hanley. Unfortunately, like the majority of historic views of events in the Potteries made possible by the advent of photography, this picture has long since disappeared. The few that remain are, in the main, in the final stage of decay and are rapidly fading into a mist from whence there can be no return. Perhaps the only reasonable permanent collection are those pictures discovered and photographically preserved by the author during the last thirty years and some of which are to a large extent permanently presented in this book.

Just before noon the Acting Mayor, Major Cecil Wedgwood, took the chair. Mr. Wilcox Edge proposed Mr. Cecil Wedgwood as Mayor of the new Borough and Mr. S. Malkin of Burslem proposed Mr. Frederick Geen. A ballot was decided upon and

Seats of Local Government.

Top Left. Tunstall Court House or Town Hall (demolished 1892). Originally erected as a square building about 1816 on a piece of land called the Stony Croft (present Market Square), it housed two fire-engines at the west end, a lock-up (prison), whilst the rest of the arched basement was used for storing market property. The top storey contained a large room used for public business. It was extensively altered and repaired in 1857 and re-opened in January, 1858. The illustration shows this reconstructed circular-fronted building modelled in cement to resemble stone work. It was lighted inside after dark by three 'very handsome gas chandeliers.' The building housed a Police Court, Board of Health room and other offices. It was demolished in 1892. On the right of the picture may be seen a corner of the old Sneyd Arms Hotel. This rare photograph was taken by an unknown photographer about 1885.

Top Centre. An early 'wet-plate' photograph of Longton Town Hall. The reconstructed building and the new Covered Market was opened in May, 1863 and occupied an acre of land. The 1862 Local Government Supplemental Act enabled the Longton Improvement Commissioners to proceed to a forced sale of the old premises (owned by Mr. Ford) which stood in the way of the completion of the new market. In 1911 it was said, 'Longton Town Hall rather reminds one of the pictures of San Francisco, after the earthquake.' There followed a £7,000 improvement scheme which incorporated the formation of a main central entrance hall leading to the new main staircase. The assembly hall was enlarged to 121 by 50 feet—almost double the size of the old hall. The Town Hall has a frontage of Hollington Stone and is in the Italian style.

Top Right. A westerly view of the 'Old' Town Hall, Burslem, taken in 1958. The corner foundation stone was laid on Wednesday, May 24th, 1854, by William Davenport, of Longport Hall. The Town Hall, built in the Italian style of the 14th and 15th centuries was opened on Wednesday, January 28th, 1857. The cost of the building was £10,000 and during building James Muldoon, a labourer, fell 50 feet into the cellars beneath and was killed. The 'Gilded Angel' surmounting the Town Hall, made famous by Arnold Bennett, is described as a 'winged figure of Civic Victory descending with the crown and "Meed of Merit."' It was made in copper by the electrotype deposit process. The remaining four figures, made by the same process which once graced the interior of the Police Court in the Town Hall, are now in the possession of the author The clock dial below the "angel" was first lighted by gas in 1857. A new clock was installed in July 1925, by John Smith & Sons, of Derby. The whole of the mechanism was renewed with the exception of the bell for striking the hour which was retained in good condition. The four new five feet diameter dials, with opal glass backgrounds were lighted by electricity. The one hundredweight pendulem ensures accurate timekeeping.

Bottom Left. Hanley Old Town Hall, built in the Renaissance style, was opened on July 31st, 1845. It was the storm centre during the Chartists Riots. It also housed the police station. On March 1st, 1886, the building was taken over by Lloyds Bank which had been transferred there from Lamb Street. It was demolished in 1936 and the new bank opened in April, 1937.

Bottom Centre. Burslem's original Town or Market Hall which originated in a lease, dated June 24th, 1761, from Sir Nigel Gresley, Bart., and Ralph Sneyd, the then Lords of the Manor who granted the land for the erection of a market hall. Almost 100 years later, in January, 1854, the building was demolished to make way for the new. A man had a narrow escape from death. When removing the old weather vane from the cupola he slipped and fell upon the roof of the hall. To the right the house used as a police station can be seen as well as the Meat Market, demolished 1957. The illustration is from Ward's History of Stoke-on-Trent, 1842.

Bottom Right. Fenton Town Hall. In 1873 when Fenton was constituted a local board district with a population of 12,000 and a rateable value of £30,000, the town's business was conducted on premises in Market Street adjoining the Canning Hotel. Here the fortnightly police court was also held. The Board then took possession of the Fenton Athenaeum where the business of the town was conducted. It was built at the end of Church Street in 1853-54. This building was used until December, 1889, when the present Town Buildings were opened. They were erected by Mr. W. M. Baker, a Fenton worthy, then of Hasfield Court, Gloucester, at a cost of £10,000 including the site. The Town Hall was purchased by the Fenton Urban District Council between March, 1907 and December, 1908. The handsome Albert Square, in front of the Town Hall, was laid out as gardens in 1952.

taken by the Acting Town Clerk, Mr. Eustace Joy. The result gave Mr. Wedgwood 44 votes, Mr. Geen 32.

So at forty-eight years of age, Major Cecil Wedgwood became the first Mayor of Stoke-on-Trent. Born at Hem Heath, Trentham, he was the son of Mr. Godfrey Wedgwood, but due to the early death of his mother, spent much of his early life at the home of his grandfather, at Upper House, Barlaston. He was educated by Mr. Alfred Smith, first clerk to the Hanley School Board, and later at Mr. Lake's school at Caterham in Surrey and at Clifton College. After this he went to the University of Geneva and then entered the Wedgwood works at Etruria in 1882. He volunteered, along with other members of the Wedgwood family, for service in the Boer War. In the year 1900 he was sent as Commandant to Wellington, about fifty miles north of Capetown, accompanied by three companies of the 4th North Staffords, under the command of Colonel Mirehouse. Later he was made Commandant of Paarl, a much larger area, which included Wellington. He was answerable for the railway, for the troops, for the carrying out of martial law, for the collection of taxes, the provision of fodder, and for many other matters. One year later he was appointed Commandant of Carnarvon, in the north of Cape Colony and afterwards Commandant at De Aar, an appointment he retained until his return home. On his return he was given a rousing reception by the workpeople at Etruria and presented with a silver tea tray (a similar gift was made to Captain Frank Wedgwood). Major Wedgwood was twice mentioned in despatches, and besides two medals, he was awarded the Distinguished Service Order. He, and his cousin Frank, received the freedom of the County Borough of Hanley, in recognition of their service. Major Wedgwood had been a member of the Hanley Town Council and represented that body in the Territorial Association. He was President of the North Staffordshire Chamber of Commerce and an ardent supporter of Federation. At the time of his election he lived at Woodhouse, Cheadle.

After the election of the Mayor, Aldermen were appointed, five for Burslem, seven for Hanley, four for Longton, four for Stoke and three each for Fenton and Tunstall. The election of Aldermen was followed by a recess for lunch when the members of the new Federated Council were entertained by the directors of the North Staffordshire Railway Company. The luncheon was laid out in a large marquee on the lawn of the hotel. The elaborate menu card was embellished with a large oval in which were the coat of arms of the six Potteries towns. After lunch the proceedings continued throughout the afternoon and evening until 8-45 p.m. when the Mayor rose to conclude the historic events of the day and announced that the Council would meet at 2 p.m. the following day.

Much business was conducted at this first meeting of the Council concerning such items as : standing orders, the need of temporary rules, duration of speeches, appointment of committees, parks and cemeteries, finance, sewage, gas and electricity supply, salaries, wages, the press, terms of the Town Clerks appointment, education, the police, the fire brigade, the water works, taxation and the Town Hall question (where the council meetings were to be held), together with the election of Alderman F. Geen as Deputy Mayor of the Borough. The seal for the new council was considered and it was realized that it would take time to obtain designs and estimates for a proper seal. It was therefore decided that meanwhile a temporary rubber seal, bearing a

representation of the Staffordshire Knot, surrounded by the words, County Borough of Stoke-on-Trent, should be made and used. The General Purpose Committee was instructed to deal with the matter of a permanent seal. This seal eventually took the form of a shield incorporating some sections from all the coats of arms of the six towns in use before federation and as allowed by the College of Arms. The Arms were granted in 1912. Thus from the Arms of Hanley came the Ridgway camel; from Stoke the boar's head of the Minton family ; from Burslem the scythe of the Sneyd family ; from Tunstall the Staffordshire Knot ; from Fenton the fretty cross ; from Longton the spread eagle of the James Glover crest (first Mayor of Longton). The Portland Vase symbolised the Wedgwood family and the pottery industry. The crest, showing an Egyptian potter working a primitive potter's wheel, suggested the beginning of the potter's craft. Below the shield was placed the motto, 'Vis Unita Fortior' (United strength is stronger). The arms of the city at present are, in the main, the same having only minor variations in the scrollwork and decorative supporters. The colour scheme of the coat of arms of the city is as follows. The wreath surmounting the shield is in red and silver and the potter at his wheel in silver. The arms, silver, a red cross fretted with gold. The Portland Vase and the camel are in natural colours, the camel bearing a silver shield on which is a red cross. The black eagle and the scythe is in natural colours. The shield is capped with a red chief bearing a gold boar's head set between two gold Stafford Knots. Documents of the College of Heraldry, approving the city coat of arms, are carefully preserved in the city archives.

Quite early the Mayor, Major Cecil Wedgwood, asked the council if they would agree to the proposition put by Longton, that the robes and chain of the town of Longton should be handed over to the new borough for the first year, for Longton had exceptionally fine robes and chain.

The Civic Regalia is of course of prime importance and represents the essence of the Mayoral Office. The mayoral chains dated back to before federation. The Stoke chain is now worn by the Lord Mayor of the City of Stoke-on-Trent. The chain worn by the Lady Mayoress was presented by Mrs. E. W. Montford and is made of gold and platinium and studded with precious stones. Mrs. Montford's generous benefactions to the city and to various good causes are well known. The Mayoral Robes of Stoke-on-Trent, richly embroidered with gold thread, are a replica of those worn by the Lord Mayor of London. They belonged in the first place to the town of Longton and were worn by the Mayors of that town including the Duke of Sutherland. The mace, emblem of civic authority, was originally used by the Borough of Burslem. It had been the gift, in January, 1892, of Alderman Thomas F. Wood. In such ways are the treasures of the towns of Stoke-on-Trent preserved and it is interesting to note that also preserved are the original chains of office of the towns of Hanley, Burslem, Tunstall and Longton.

A Church Parade was inaugurated on Sunday, April 24th, 1910, when Mr. Wedgwood, who was an Unitarian, invited members of the council to accompany him to Stoke Church where his ancestor, Josiah Wedgwood the First, also an Unitarian, lay buried.

The formative years of the new borough were made more difficult by the first World War (1914-1918) and many advances and improvements had to be shelved

until after this period. Notable amongst these was the application, in 1919, by the County Borough of Stoke-on-Trent, to the Ministry of Health, to extend the Stoke-on-Trent boundaries to include sections of the Urban District of Kidsgrove, the whole of the Urban District of Smallthorne, the Rural District of Stoke-on-Trent and parts of the Rural Districts of Stone, Leek and Cheadle. An Extension Bill, approved by Parliament in August 1921, and coming into force on April 1st, 1922, granted these requests and the boundaries were extended through Packmoor, Brindley Ford, Ball Green, Norton, Smallthorne, Milton, Abbey Hulton, Bucknall, Adderley Green, Meir, Blurton, Hanford and a portion of Trentham, making a total of over 9,600 acres added to the County Borough.

At this period Stoke-on-Trent was thus growing rapidly and would have liked also to take in the Borough of Newcastle-under-Lyme together with the Urban Districts of Wolstanton, Clayton and part of Keele—a request that was refused. Despite this refusal, Stoke-on-Trent later promoted another Private Bill in Parliament in May and June of the year 1930 for this annexation. The first round was won in the House of Commons by Stoke-on-Trent, despite fierce opposition from Newcastle, Wolstanton and the Staffordshire County Council. A post-card poll in Newcastle and Wolstanton had revealed that over 97% of the Newcastle people were against annexation, with over 96% in Wolstanton. The city was anxious to increase its area to 30,000 acres, with a probable population of some 336,000 people. Hopes ran high on the decision of the House of Commons. The decisive stage came when the Bill went before the House of Lords in July of the same year. On July 10th, 1930, the 'Sentinel' announced in a special 'Annexation Edition,' that shortly after six o'clock that night, the House of Lords had thrown out the Stoke-on-Trent Annexation Bill, with a vote of 63 against and 45 for the Bill. On March 17th, 1931, the House of Lords rejected the Bill for a second time by 73 votes to 31. Again in 1946, the idea of a greater Stoke-on-Trent was revived for Newcastle, Kidsgrove and parts of Leek and Stone Rural Districts to be taken under its wing. At this time a Local Government Boundary Commission was appointed to deal with the problems of local Government powers and areas.

A report issued in 1947 suggested the bringing into being of a one tier new county administered by a single all-purpose authority embracing the City of Stoke-on-Trent, the Borough of Newcastle-under-Lyme, the Urban District of Kidsgrove, together with some neighbouring areas. These proposals fell through because of the Government's decision, in June 1949, to wind up the Local Government Boundary Commission. In 1950 the acreage of the city was 21,190 acres, with a population of over 250,000. In 1951 the acreage of the city was 21,190 acres, with a population of over 275,000 and a rateable value of £1,368,159 as against £789,461 in 1910. Today, 1957, the rateable value at the 30th April, is £2,420,321 and the population approximately 273,000. The general rate for the year ending March 31st, 1958, is 21/6d. in the pound. Since then no new acquisitive moves have been made by the city and for the time being the likelihood of the Potteries area being merged into a North Staffordshire County is dormant.

In the year 1925 their Majesties King George V and Queen Mary visited the Potteries. This was a memorable Royal visit for the Borough of Stoke-on-Trent, for

when their Majesties departed, Stoke-on-Trent had been raised to the status of a city. King George personally conferred this honour which on June 5th was recorded by Royal Letter Patent. The ever increasing importance of the district, its industries and excellent government, were at last recognised under the title of City of Stoke-on-Trent. Three years later, on July 10th, 1928, the granting of Letters Patent, the office of Mayor and Chief Magistrate was elevated to that of Lord Major of the City of Stoke-on-Trent and the first man to enjoy this honour was **Thomas Clarke Wild.** The Charter elevating the County Borough of Stoke-on-Trent to the status of City of Stoke-on-Trent are preserved, together with 'Letters Patent' creating the office of Lord Mayor. Three years after the election of its first Lord Mayor, part of the Parish of Trentham, and part of the Parish of Barlaston was added to the city.

Today, at the time of writing this chapter, 1957, the City Council is presided over by the Reverend Arthur Perry, Lord Mayor of Stoke-on-Trent. For many years vicar of St. Luke's Church, Wellington, Hanley, and now vicar of Penkhull, he is said to be the first clergyman to hold the office of Lord Mayor, not only in Stoke-on-Trent but in the kingdom. Under him is the City Council, consisting of twenty-four Aldermen and seventy-two Councillors, representing the twenty-four wards into which the city is divided. The council meets in the Town Hall, Stoke.

Fourteen Aldermen are elected by the Councillors every third year on November 9th, who hold office for a period of six years. Such Aldermen have usually been members of the City Council, but it is possible for the Councillors to elect to the Aldermanic bench, any individual whom they feel could render useful and valuable service to the Council.

The Lord Mayor of the City is elected annually by the vote of the Aldermen and Councillors, from members of the City Council, but it is possible for a person, without Council experience, to be elected as Lord Mayor. Any suitable citizen may seek election to the City Council. Such persons must have the support of the public of their area or ward. They must possess a high standard of integrity, a desire to serve without remuneration and be able to give up a large portion of their time. Contrary to some beliefs Aldermen and Councillors are not paid for their services.

The Honorary Freedom of the City is one of the greatest honours that the city can confer. Inaugurated in 1923, this signal honour is accorded to few and have been awarded, in the main, for distinguished service to Stoke-on-Trent and includes several men who have not served on the City Council.

The City Council deals with a vast amount of work in connection with the government of the city through various committees, composed of members of the Council.

One of the most important of all the committees is that of Finance, which recommends, in conjunction with the Finance Department, the annual budget to the City Council. Despite Government Grants for education, police, housing, etc., the figure is a formidable one. The whole of the accounts of the Corporation are published each year in a printed Abstract of Accounts. It is well to remember that not all financial questions are matters of expenditure (although of necessity the major portion must be so) for in a year the City Cleansing and Salvage Department, employing 450 people, benefitted the city's finances to the extent of at least £18,000 in the collection of refuse. Some £900 was recovered on the sale of bottles alone! The business at a

council meeting is a somewhat complicated procedure, but carefully arranged for members of the council, by the Town Clerk, Mr. Harry Taylor and his deputy, Mr. W. C. Scott. Standing Orders comprise a list of some sixty-eight rulings, which must be adhered to and correctly interpreted. The Lord Mayor, or Chairman, may at any meeting vary the order of business, but the order of business usually follows a set pattern: Minutes of the previous meeting of the Council, official announcements, business of a non-contentious nature. Petitions, called memorials, are next on the agenda, presented through a Member of the Council only. Business remaining from the last meeting of the Council is dealt with next, followed by the Reports of Committees, and so on to 'Any other business.'

In Stoke-on-Trent, the Municipal Offices are partly in Stoke and partly in Hanley. The Town Hall, Stoke, is the hub of local government of the city and here will be found the City Council Chamber, the Lord's Mayor's Parlour, Town Clerk's office and several important departments. The Education Department and Police Headquarters are housed in Hanley Town Hall.

After the Second World War a boundary revision was made, in which the names of the towns of Stoke-on-Trent, used as titles of Parliamentary Divisions, was discontinued. The new Divisions, each planned to contain about 60,000 electors, were to be known as Stoke-on-Trent North, Central and South. Thus divided into three Divisions, the Parliamentary Borough of Stoke-on-Trent, sends three members to Parliament in the House of Commons.

For many years now on the City Council and in the representation of Stoke-on-Trent in Parliament Labour has reigned supreme. Liberalism tended to hold sway during the last century. The good will and progress of Stoke-on-Trent has been built by the efforts of all political parties spread over a long period of time. In 1931 Stoke-on-Trent returned non-labour candidates. Mr. H. K. Hales ('hero' of Arnold Bennett's novel 'The Card') was Conservative member for Hanley. Mrs. Ronald Copeland was Conservative member for Stoke and William Allen in Burslem was a Liberal. The Labour party was successful in the General Election of 1935. An individual exception to the Labour rule was that of Colonel John Ward who was elected for Stoke in 1906, as a Liberal-Labour candidate and as an Independent after the 1914-1918 War. He held the seat against Labour opposition at the elections of 1922, 1923 and 1924. He was finally defeated after 23 years' representation of Stoke, in 1929, by the Labour candidate, Lady Cynthia Moseley.

It has been said that the Liberals held sway in the last century and William Woodall will be a name long remembered in the Potteries as symbolic of the politics and local life of the day. William Woodall, born at Shrewsbury in 1832 and elected as Liberal candidate in 1880, was a local pottery manufacturer, a great Congregationalist, educationalist and advocate of the women's suffrage movement. He arrived in Burslem, from Liverpool, in 1857, as manager of the gas works. Five years later he married into the Macintyre family of Burslem and became a partner in the firm of James Macintyre & Co., of Waterloo Road, Burslem, where he instituted an eight-hour working day. He also became a Governor of the Haywood Hospital. He was a Poor-Law Guardian, a member of the School Board, served on the Burslem Board of Health and later a Town Councillor. He was also closely connected with the Wedg-

wood Institute. He represented Stoke-on-Trent for five years and later was elected four times for Hanley, which made him a Freeman in 1900. He held the high office of Financial Secretary to the War Office in the Gladstone Government of 1880. He was also a Justice of the Peace. He died on April 8th, 1901, and was buried at Llanrhos. His memory is perpetuated in the Woodall Memorial Congregational Church, Burslem, which was opened in 1906. Mr. Woodall had been a member of the Queen Street Congregational Church during his adult life.

The passing of the Liberal era in 1906 saw the incoming of the Labour Movement by which our city is now governed. The new era was headed by Mr. Enoch Edwards, who represented Hanley from 1906 to 1912, as a Labour-Liberal Member. Mr. Edwards was a mineworker who, mainly self-educated, became an official in a local trade union movement, the North Staffordshire Miners' Association. He was from 1904 until his death in 1912, President of the Miners' National Federation. He was elected Mayor of Burslem in 1899.

Until the Reform Act of 1832 Newcastle had been the only town in the North Staffordshire area sending a Member to Parliament, but under this Act, the Parliamentary Borough of Stoke-on-Trent was permitted to send two members. The Wedgwood, Davenport, Heathcote, Copeland, Ricardo and other wellknown families all played active parts in the political life of the district. Josiah Wedgwood and John Davenport were the two first local Members of Parliament, followed in 1835 by Mr. J. E. Heathcote, and on his retirement, in 1836, by a Liberal, Colonel George Anson. In 1837, William Copeland, a member of the distinguished family of pottery manufacturers, was elected along with Mr. John Davenport. John Lewis Ricardo, who became a forceful and prominent local Member of Parliament, was elected in 1845 and continued to represent the district until 1862. Mr. H. R. Grenfell was connected with the constituency between 1862 and 1868. He later, in 1881, became a Governor of the Bank of England. Mr. Alexander Berisford-Hope was a Member of Parliament for Stoke in 1865 and Mr. G. Melley was elected in 1868 and again in 1874, but resigned after the second contest. At the by-election which followed on February 15th, 1875, Dr. Edward V. H. Kenealy was elected. Dr. Kenealy was a barrister who was junior to Sergeant Shee, in the defence of Palmer, the Rugeley poisoner. He also acted for Arthur Orton the false claimant in the famous Tichborne title and fortune case of 1873. Kenealy accused the judges of bias in the case. He started a paper and a society to press Orton's case. So notorious was the new Member that at Westminster no Member would introduce him. The Prime Minister, Disraeli, had to dispense with the usual procedure. Never daunted, Kenealy attempted to secure a Royal Commission on the Tichbourne case but failed in his efforts. Kenealy was on the wane for in 1880, when fighting the election once more, he came bottom of the poll. He died the same year. His only memorial seems to have been a short verse:-

'Dr. Kenealy, that popular bloke
The hard-hearted member, the member for Stoke;
Keep it dark!'

As already stated, William Woodall was elected to represent Stoke in Parliament, in 1880. In 1885, when Hanley and Burslem became the Parliamentary Borough of Hanley, Mr. William Woodall became its representative for four years. At this time,

about 1900, the number of electors in the Borough was 16,251, from a population of 100,290. Following Mr. Woodall came Mr. Arthur Heath as Conservative Member of Parliament for Hanley, and then in 1906, Alderman Enoch Edwards, who was born at Talk-'o-th'-Hill in 1852 and who commenced work as a collier at the age of nine. At the present day (1959) the Parliamentary Representatives are Alderman Mrs. Harriet Slater, of Milton, Dr. Barnett Stross—formerly residing in Shelton but now in London, and Mr. Ellis Smith, living in Manchester. All three members have given long and loyal service to their cause in addition to innumerable good works in other directions.

MAYORS AND LORD MAYORS SINCE FEDERATION.

1910	Cecil Wedgwood.
1910-11	Cecil Wedgwood.
1911-12	Frederick Geen.
1912-13	Frederick Geen.
1913-14	Philip Elliott.
1914-15	Philip Elliott.
1915-16	John Shaw Goddard.
1916-17	John Shaw Goddard.
1917-18	William Edward Robinson.
1918-19	William Edward Robinson.
1919-20	William Edward Robinson.
1920-21	Sampson Walker.
1921-22	Samuel Sproston.
1922-23	Frederick Thomas Henry Goodwin.
1923-24	Frank Collis.
1924-25	Harry Leese.
1925-26	Fred Hayward.
1926-27	William Walker.
1927-28	Thomas Clarke Wild (Title of Lord Mayor conferred 10th July, 1928).
1928-29	William Thomas Leason.
1929-30	George Herbert Barber.
1930-31	Herbert Joseph Colclough.
1931-32	Florence Ann Farmer.
1932-33	Thomas Mitchell.
1933-34	Arthur Hollins.
1934-35	Alfred Cromwell Harvey.
1935-36	John Henry Dale.
1936-37	John Arthur Dale.
1937-38	George James Timmis.
1938-39	John Barker.
1939-40	William Arthur Holdcroft.
1940-41	Arthur Edward Hewitt.
1941-42	Harry William McBrine.

1942-43 Charles Austin Brook.
1943-44 Arthur Austin.
1944-45 William Herbert Kemp.
1945-46 Percy Williams.
1946-47 Harry Leason.
1947-48 Henry Beresford.
1948-49 Henry Beresford (November—May).
1949-50 Arthur Percy Spark.
1950-51 Henry Hopwood.
1951-52 Horace Barks.
1952-53 George Leonard Barber.
1953-54 Albert Edward Bennett.
1954-55 Annie Longson Barker.
1955-56 Harold Naylor.
1956-57 William Bailey.
1957-58 Arthur Perry, Rev.
1958-59 Samuel Capewell.
1959-60 Harold Clowes.
1960-61 Gordon Dale.

Left. Stoke Town Hall about the year 1900. Note the coal-carts—a well known sight in the Potteries at this period. Within the building is the Jubilee Hall, redesigned to commemorate the Silver Jubilee of the reign of King George V. It was in the fine Council Chamber on Jubilee Day, March 31st, 1960, that the Freedom of the City was conferred on Honorary Alderman Arthur Hollins, Alderman Harry Hopwood, Alderman George J. Timmis and Dr. Arnold T. Green. The freedom scolls, bound in red leather, were handed to them by the Lord Mayor, Alderman Harold Clowes.

Centre. A civic group of Lord Mayors and Lady Mayoresses photographed in the Lady Mayoress' Retiring Room during the year of office of Alderman G. L. Barber and Mrs. Barber in 1952-3.

Right. Sir Oliver Lodge, F.R.S., receives the Honorary Freedom of the City of Stoke-on-Trent from the Mayor, Alderman T. C. Wild, in the Council Chamber at the Stoke Town Hall. Photograph by courtesy of the "Evening Sentinel."

CHAPTER 7.

Life in the Six Towns

The writer feels that a fascinating study lies within the heading to this chapter of the history of the City of Stoke-on-Trent—a subject of such interest that a large volume could well be written from information at present available.

The heart of a city is in its people, and the behaviour, work and welfare of them is an all-important part of any history.

The City owes most of its growth to the Industrial Revolution—a process which began in the mid-eighteenth century and continued in many stages to the present day. It is the study of these some two hundred and more years in the towns of the Potteries which must claim our attention.

Early chapters in this work have told us something of the beginning of our city. Up to a certain point the whole is shrouded in a darkness, into which the light of record can only penetrate so far.

Some of the earliest known records compiled during the reign of King Charles II, (1660-1685) present some aspects of life, locally, during the early part of the King's reign, one aspect which literally came into every home at that period in the form of a tax of two shillings per hearth! The tax was very unpopular, partly because of the 'plague of inspectors it produced.' It was discontinued in 1689.

At this time (1666) the whole of the area was rural and Burslem, the Mother Town, possessed only forty houses and Tunstall only half this number! Hanley, the shopping centre of the present city, contained few houses, the largest of which had eight hearths and there were only three residents who paid tax on three-hearths houses, the remainder being one-hearth homes. The total population was said to be in the region of eighty people.

Mr. Thomas Wedgwood at Burslem had the comfort of three hearths in his home. The exemption line for this tax was extended to those who possessed £10 or less of real or personal estate. It was said that none but the very poor would be affected by the tax, but the poor would probably be in the majority. True, they had the 'comfort' of some little help from the overseers and churchwardens who administered the Poor Law Scheme, which came into being in 1601—a Law which was amended in 1834 to put a stop to the abuse by Guardians who aided wages from the rates. Such wrongdoers and others were answerable to the Court Leet at which the Reeve and Constable were in office. Few of the customs of the manor now survive. The courts have long since passed away, but in mediaeval times and until the beginning of the nineteenth century, small courts were held every three weeks, and also at Michaelmas and Easter.

That the very poor needed the help of the officials of the Poor Law and that they both fell foul of the Court Leet, will not be doubted. But as time passed wages increased and in the eighteenth century pottery turners who had completed their apprenticeship, were rewarded with the sum of 7s. a week. Lathe treader boys, aged

seven years and upwards, were paid but 4d. as a weekly wage.

As the years passed the population of the villages forming the Potteries increased from a few hundreds to several thousands. In 1738 the total population was 4,000, which by 1801 had increased to 23, 706 and by 1811 to over 31,000 of which Hanley was responsible for almost 10,000 people. The town, still rural, was separated from Burslem by fields. The nature of the inhabitants of the towns, renowned to this day for their friendliness, was kindly and warm. Thomas Campbell, the poet, visiting Ralph Stevenson at Cobridge Hall in 1803 declared of the Potteries, 'I found a heavy, plodding, unrefined race of pot-workers, much hospitality—all the essence of politeness without any of its outside . . . and although Staffordshire is not a hot-bed of genius I found some of the gentlemen I visited men of superior minds.' During his nine-day stay Campbell also said that, 'Stevenson keeps amazingly well; he is really an honest fellow, and among the wicked gang of workmen, a provender for the needy . . . Society has all the charm of life there; for the country is one chaos of smoke and brick furnaces . . . . their ambrosial brown ale, which excels all that I have ever tasted. The roads are so deep that one can hardly drag a pair of heavy shoes along them . . . At evening the sober-looking English Hall blazes with a large fire . . . The neighbouring potters assemble to join in the feast and flow of ale . . . The Potteries contains, at least as far as I can judge, a worthy and respectable population —not crowded into one large and vicious town, but scattered over a surface of eight or ten miles, divided into villages where industry, wealth, health and happinesss reigned . . . Stevenson says that few of the men earn less than one guinea per week; . . . yet their dissipation is never excessive and no neighbourhood gives fewer subjects to the whip and the gallows. Their language, which abounds in "wunnas " and "cannas." "Na, na, maun, we maun tak a point of ale and pork poy. Thy stomack is very nesh." ' Campbell concludes his eulogy of the Potteries people by saying: 'There is to be an elegant ball tomorrow at Cobridge Hall, when I propose to do myself the honour of leading a Staffordshire lady down the mazes of a country dance.' He was also entertained well at Etruria Hall, but as we shall see later the picture he painted of life in the Potteries in 1803, was to be smeared and blackened with the passing of years. Indeed, Josiah Wedgwood of Etruria Hall whose own indenture as an apprentice potter had contained this clause: 'Cards, dice, or any other unlawful games he shall not play; taverns or ale-houses he shall not haunt or frequent; fornication he shall not commit; matrimony he shall not contract,' might well have told him that the picture he (Campbell) had presented in his letters was too colourful and that the indenture for apprentices contained all those faults of which the people of the six towns were to be justly or unjustly accused in the years to come to such an extent that the immortal Potteries author, Arnold Bennett, was one hundred years later to spring to the defence of his native Potteries. He declared, in truth, that the morals of the people of the 'Five Towns' were no worse than those found in other towns of England.

Early chapters in this book have shown that pottery in some form or other was made in the area in Roman times. It is, however, difficult to date with any certainty when earthenware pottery was first introduced into the district as a regular form of work resulting in the villages becoming known as the Potteries. It is known that

earthenware was made in Burslem as early as 1600 which was known as the Butter-Pot Town and was even marked as such on some early maps. Made in crude brown or red clay these butter-pots were in constant demand. A considerable amount of trickery was carried out in the making of these pots in order that the amount of butter they contained was disguised. Thus false bottoms and over-heavy ware was common practice in the making to such an extent that an Act of Parliament passed in the reign of King Charles II, regulated the size and weight of the butter-pot. The butter-pots were cylindrical in shape and unglazed and butter was bought and sold 'by the pot.' The pots were to weigh 'six pounds at most, and yet to contain at least fourteen pounds of butter.' The ware, at this time (1675), was fired in early potter's ovens which were some eight feet high and about six feet wide. Later, about the year 1690, the pots were given a glossy finish by means of a discovery known as salt-glazing.

The eighteenth century saw the crude wares of the Butter Pottery develop to a state of perfection by Josiah Wedgwood and his contemporaries which would have amazed his forebears of the previous century. It was from about the year 1760 that the rapid advance of local pottery manufactories marked the future of a great industry. The population of the Potteries had grown to at least 7,000 of which 3,000 worked and lived in the Mother Town of Burslem. In 1801, the first Parliamentary Census was taken which showed that there were nearly 24,000 people in the district, which by 1841 had increased to well over 68,000.

The towns of the Potteries were, by the first quarter of the nineteenth century, deep in the Industrial Revolution, a vast social and workaday change which was sweeping the country. It brought with it plans for a new conception of life in the Potteries. 'The Lane,' stretching from Tunstall in the north to Lane End (or Longton) in the south, became a hive of industry. Houses and pot-works had been built without thought or plan in the race for wealth; living conditions of the workers were forgotten by the owners in their efforts for more and more production of ware and in their desire to build for themselves fine mansions. A selfishness existed that was to bring misery, crime, immorality and unemployment with its attendant strikes in the years to come and a hatred between the masters and the men in which the women and children were to share in full measure.

Child Labour

Women and children assisted the men in the pottery manufactories. This makes an interesting study, especially when compared with the life of the child of the welfare state of to-day. Conditions under which these children worked were appalling. Even Josiah Wedgwood (the second) employed children, but these were fortunate indeed as there is no doubt that they were very much better treated than in many of the pot-works. In 1816, at the Wedgwood works at Etruria—then classed as a model factory of the day—a total of 350 people were employed, 103 of these were over ten years of age, but under eighteen. Most of these children of 11, 12 or 14 years of age worked from 8 a.m. until 5 p.m. with half an hour for breakfast and one hour for lunch. The men worked from 6-30 a.m. to 6 p.m. with an half-hour lunch break. These hours were shortened in the autumn and winter when the daylight was shorter, except from November 11th to February 2nd, when candles were used for lighting

and work was from 7-30 a.m. to 6 p.m. Candles cost ½d., in those days quite a considerable sum. There were, however, busy times when work was carried on until 9 p.m., in which the children joined. Such times were known as 'half nights' and work could well take place from 6-30 a.m. to 9 p.m.

These children usually assisted the dippers and 'piece' men who were paid by the hour. The children were paid by the men themselves—an arrangement that in some cases brought much misery and suffering in some manufactories.

Of thirteen children under 13 years of age employed at Etruria in 1816, ten could read and seven could both read and write. Without wishing unduly to eulogize Wedgwood in comparison with other well known manufacturers of which there were many excellent and humane men this standard of education was typical of the Etruscan folk who were, without doubt from a sociological point of view, far in advance of people in some other parts of the district. In stating these facts we shall see that in comparison with the vicious life in some of the pot-works, Wedgwood's, Etruria, was indeed a haven of peace where work was carried out in a works set in a beautiful landscape and in a godly atmosphere. This was due to a great extent to Wedgwood, I and II, who had planned and built a modern manufactory, a village and a school in which to educate the children of the workers. An isolated works, set in the then open country between Hanley and Newcastle-under-Lyme, is now repeated in the setting of the modern works at Barlaston.

When giving evidence in an enquiry into the state of the children employed in the manufactories of the United Kingdom, Mr. Josiah Wedgwood II said: 'I have had a day school for a long time for the fifty children employed, taught by a master, for which a very small charge is made.'

Children worked thirteen hours a day in many pot works and such additional earnings were greatly appreciated by the families concerned, but at Etruria ten hours was the average time worked by them. Mr. Wedgwood said also that 'Children would be altogether better if they had nothing else to do than play and learn their lessons.'

Compared with the Lancashire cotton mills conditions at Etruria must have seemed very favourable, for in 1815-1816 the Stockport mills had worked from three and four o'clock in the morning until nine o'clock at night. Children were 'bought' from the orphanage by employers who housed them in dormitories at the mills with often only old women to look after them. The beds were 'hot beds'—one shift following the other. In some cotton mills children worked in relays of eleven hours through the night.

Moving from the comparatively better conditions of employment at Etruria to evidence of conditions prevailing in the average pot works of the first half of the nineteenth century, one finds that the children of the year 1840 might still look with terrified eyes set in pinched faces on a Potteries in which semi-starvation, beatings and ill-treatment accompanied by crime and vice were all prevalent.

It was by no means uncommon for boys to begin work at the age of seven in the pot works, starting at 6 a.m., and finishing any time between 6 and 8 p.m., according to the man (not employer) he worked for. For this work the boy would be paid one shilling a week and this was also paid to him by the same man who in turn received his pay from the master of the pottery. Many of the men for whom the boys worked

were evil, drunken beings and one can well imagine the pathetic picture of the small exhausted boy awaiting his paltry wage from some drunken lout.

The boys were frequently employed as 'mould runners' which consisted of literally running in all weathers, often from one building to another and placing the newly made ware in rows near to a stove for hardening purposes and then returning with an empty mould. Such a boy was the author of 'When I was a Child,' a remarkable work on child-life in the Potteries. He later entered the ministry and his impartiality and wisdom is conveyed in his book (unfortunately long out of print) which should be read by all students of social history. Writing under the pseudonym of 'An Old Potter' he says of the boys. 'Nothing less than running would do—the perspiration coursing down their faces and backs, making channels . . . on the surface of these small pieces of humanity . . . irrigation in Egypt would not surpass that of the sweat of his brow. He adds, 'Coarse oaths, threats and brutal blows in many cases following any failure to be at the bench at the required moment . . . I have seen sights of sickening brutality inflicted upon mere children, and yet such was the callousness of the time that neither masters nor men thought of measures to do away with these cruelties.' Of the masters he declares of two pottery manufacturers in the Tunstall area . . . 'One of them was rarely seen at the works. The other used to come about ten o'clock in the morning in a carriage and pair and stay half-an-hour or an hour. I never saw him in a workshop. The employer did not disdain to accept the profit got out of seventy to eighty hours' labour per week for a child nine years of age, while the child got one-and-six or two shillings. Probably his carriage horse would eat as much food at one meal as such sums would buy. . . . A later employer, very occasionally came through the shop with a tall silk hat on, and a swallow-tailed coat and shining boots. His habit was never to stop—but to look up and forward, over the heads of the workpeople, with his hands under his coat tails, which tails were incessantly tossed, looking as if he had come on parade to show the awful or sublime contrast between his special humanity and that of the drudging humanity around him. Some of the pottery masters in those days were amusing. They aped the manners of the country gentlemen in the neighbourhood.'

No child was too young if it had the strength to become a 'jigger' turner, its little legs work fast enough as a 'mould runner' or its tiny hands smash together lumps of clay in the 'wedging clay' process to reduce it to a state similar to putty, from which the plate-maker made his pancake-like pieces of clay for making plates and saucers. These children, frequently at work from 6 a.m. to 9 p.m., had several miles to walk home, after which, almost too exhausted to eat their frugal suppers, they would tumble into bed—their sleep disturbed by the fear that they would not be back at work by 6 a.m., through over-sleeping. Picture such a typical example that took place in Longton, about the year 1845, when a ten-year-old boy was hurrying to work from Lane Delph. He carried a paper parcel which contained, what he called bread and butter. His mother had given him her last penny to buy something to eat to add to his dinner! The tired boy was running the moulds as fast as he could 'placing' them on the shelves that sometimes he damaged the delicate moist clay. Trembling in every limb he eventually brought these back to his 'master' the plate-maker. The man was so enraged that he picked up the thin wire used for cutting the clay by the boy in

the 'wedging' process, and slashed the lad across his back. The mite gave a piercing scream and writhed with pain. 'I'll kill him if he spoils my work' shouted the plate-maker when a fellow-worker remonstrated and only restrained him with difficulty. The boy, his back red and marked, was one of a family of five whose father had died at the age of thirty-five from 'Potter's Rot' (silicosis). Yet this true case was but a mild one in the records of brutality.

Drunkenness and immorality were as commonplace. The author of 'When I was a Child' records: 'Drinking on the works was horrible, being accompanied by jollifications and devilry unnameable. Then the young women were persuaded to join in the indulgence. Drink was forced upon them, in many instances, if new to the business. Before night came some of these women were drunk and didn't know where they were. Then the most lustful and villainous of the men—young men generally—would scheme to stay all night in the works. The boys were sent home. The decent and sober women fled before their usual time. The night was a revel of drink, lust and beastliness. Whoever came early next morning saw a veritable pandemonium. Men were still stupified with drink and young women bleary-eyed, dazed, with a stupid shyness dawning upon them, with woe-begone faces, and with tumbled and torn garments.'

Added to the misery already mentioned were the evils of the methods of paying wages to men, women and children. After an exhausting week's work their new worry would be when, where and how much of their meagre wages they would eventually take home. The methods of payment varied, but the system was the same. At some works a few senior men would be given a lump sum, the earnings of a number of less important workers. At other factories the more fortunate warehouse hands, women and girls were paid in the office, but the flat and hollow ware pressers and a host of others received theirs in a different manner. In fact, in general, the whole of the wages were totalled up and gold sovereigns or five-pound notes were used in the main. This bulk wage, with a detailed list of wage earners, was placed in a bag and taken by a foreman or 'master potter' to a nearby public-house, followed by a hoard of workers, men, women and children. Here the publican took charge and provided the necessary change with which to pay out the small sums. He was, however, in no hurry to do this for he made great play of the time and trouble it caused him, emphasizing that he did not charge for this service but suggesting naïvely that each worker should buy the hot rolls and cheese available, or a quart of beer for each man, or a pint for each apprentice. It was quite hopeless to expect one's wages until one had carried out this weekly ritual. In any case the landlord would delay payment for as long as possible until drinking was well on the way. Saturday was pay-day, and as men often worked until three, four or five and sometimes seven o'clock, payment would last, on occasions, until ten o'clock. Meanwhile the drinking became heavy and more wild. Women would entreat their semi-sober husbands to go home while there was still money left, for the publican did not pay until he was sure he had been paid in full for the liquor. Sometimes the women and children met with brutal resistance. At last 'Wages' would be called and payment made.

Skittles, cards and other games on which bets would be made, all took their toll of the weekly wage, often ending in quarrels and brawls. The little mould runners

and other child workers aged from seven upwards, all had to wait in the public-house, spend their due, and await the favour of the landlord. Thus the little lad from Lane Delph (Fenton) mentioned earlier, was amongst the boys who stood around in the hope of receiving the paltry week's wage. His mother had left her other four children in the care of a neighbour and was 'waiting in the cold bleak passage with the other women for the bit of money their lads had earned during the week . . . The March winds blew with wild fitful gusts up the passage as she clutched a thin shawl tightly around her shoulders. At length, about ten minutes to eleven o'clock, the boys appeared, wages in hand. The lad gave his mother half a crown—his wages—and they started home. It was with extreme difficulty that the mother could walk for she had only had a little dry bread for her dinner and had been standing three hours in that bleak public-house passage.' On their way home they visited the shop to pay for the few items of food she had secured on credit.

Much of the evil could have been avoided if change had been obtained by the employers from the banks. The potters were forced to go to the public-houses or to a shop to get change. If sent to a shop to change a sovereign they did not get twenty shillings for it. It was put on the scales and weighed and something nearly always deducted for the short weight alleged!

There were other attractions at some of the public-houses at this period (1840-1870) all calculated to keep the men there, drinking. Publicans kept badgers, bantams, cocks and bull-dogs. Others bred 'rabbit-dogs' and pigeons. Of these attractions dog fighting and cock fighting were probably the two most popular 'sports.' Both were illegal and by no means confined to the cellar of the public-house. Thus William Bourne, John Lear and Timothy Ball were all caught by Constable Houseman of the Trentham Police on a dark Saturday night in March 1840 in a field at Lane End (Longton) where by the light of lanterns, a dog-fight was taking place. At Newchapel, in March 1850, where disturbances and annoyances to peaceable inhabitants, caused by drunken people indulging in brutal sports, the police had stopped a dog-fight and summoned four of those taking an active part. In September of the same year, Ralph Belfield was charged with keeping an outbuilding at Cobridge for the purpose of cock-fighting. The magistrates were Mr. T. B. Rose and Mr. Job Meigh. Mr. Rose said that he was as fond as any man could be of amusements, but he could not countenance such cruelty. On this occasion Belfield and six other men were fined twenty-five shillings each.

Others held boxing contests. Until the year 1917, public-houses were often kept open from 6 a.m. to 11 p.m., and even at this date (1917) beer could be obtained for 3d. a pint; cigarettes from one penny a packet of five; tobacco from 1½d. for a half ounce.

Pipe smoking was a relaxation for women and as late as 1926, a Mrs. Harriet Birken of Hanley, who was almost a centenarian, used a churchwarden pipe and smoked over three ounces of tobacco weekly. She bought the pipes, still obtainable at that time, regularly each week. She said. 'I have smoked ever since I was a girl in pinafores.'

Food prices, although low by the standards of today, were high enough for the poor housewife who often had to shop late at night to obtain the best prices offered in the markets. Meat cost between 4d. to 7d. a pound, tea 2/6d. a pound, sugar 6d.

to 7d. a pound and flour cost 2/6d. a stone.

The report on the Employment and Education of Children in England (1840-1841) showed little or no improvement since Josiah Wedgwood's comments of 1816. Indeed it showed that children of five and six years of age were being employed at potteries in Burslem, Tunstall and Cobridge. Boys and girls formed one eighth total of the average labour in the manufactories and women about one third. Giving evidence before the Commission, on behalf of his father, Mr. Goddard of Longton said. 'The regular hours are between 6 a.m. and 9 p.m. All our people work by the piece, consequently time of coming and going much depends upon themselves . . . I have made the return of the number of children under the age of thirteen years. My opinion is that 15 hours a day is not too much . . . The work is easy for children; they come before the men to light fires . . . I forget the highest temperature of the hot-house . . . the children are continually going in and out . . . I think the temperature is 80 degrees. I do not think the transition from heat to cold injurious to them.' With few exceptions such indifference of the employers was typical of the day. The evils were to continue for many years but in April 1862, the Children's Employment Commissioners sent an assistant-commissioner to the Potteries to obtain evidence of the evils and the state of child employment in the district. Child employment meant those under thirteen years of age and young persons between thirteen and eighteen. The Commissioners grouped their enquiries under the following headings :-

1. Number and ages of children, and number of young persons.
2. Hours of work.
3. Meals.
4. Nature of employment.
5. State of place of work.
6. Accidents.
7. Hiring and Wages.

The Commission brought forth a depressing picture of the scene and at last public opinion was being aroused. Six months later the Reverend H. R. Sandford, one of Her Majesty's Assistant Inspectors of Schools, attended a meeting of the Potteries Chamber of Commerce. He told how the signatures of twenty-six manufacturers in the district had been received in response to the enquiry by the Home Secretary into the state of children in the Potteries. Expert opinion was that no child should be allowed to work until 9 years of age and those between nine to fourteen years of age for only half a day, the remaining time to be spent at school. It was said that the children of the Potteries were 'much stunted in growth' and that the seeds of consumption—then so prevalent—developed into active disease by over-work and exposure to great alterations in temperature. In October of the same year, the Reverend Sandford invited the manufacturers of Hanley to meet him in the Council Chamber. Only one manufacturer, Mr. Dimmock, was present, but there was a good attendance of overseers. It was pointed out that out of 2,600 children in the national schools of the district only about 360 were over the age of ten. The inspector was delighted with the children of the Potteries—they were more intelligent and less rough, by far, than country children and had pleasanter manners than the children of the coal and iron districts. Mr. Heath, an overseer with twenty years experience said that there was

1. The Wedgwood Manufactory at Etruria, about 1816, then classed as a model factory. Note barge with masts !

2. View of a typical mid-nineteenth century "Pot Bank."

3. Mr. W. J. Blake's study of earthenware dippers at work in a Longton factory, about 1880. "The finest glaze contains lead . . . . and is deadly to the operator."

4. The works of Alcock, Lindley and Bloore Ltd., at Wedgwood Place, Burslem. The section nearest the camera with its quaint chimneys was once the Burslem Work House. The Factory was demolished in 1958.

5. A rare photograph, by W. J. Blake, of a Potter's wheel still in use at a Longton Pottery in April, 1907. Note the long gas pipe with bats-wing burner for use after dark.

only one factory where a regulation with regard to the age of children was enforced, that of Wedgwood's Etruria, where children under eleven were not allowed to work. In the factory where he worked (1862) children of six and seven were employed and eight was a common age for little girls to start work as paintresses !

It was the custom of some plate-makers to go off drinking for two or three days, and for the masters to allow them to make up their time when they returned. The result was that the boys who waited on them had to work fourteen or sixteen hours, and sometimes all night, running backwards and forwards in a heat greater than that of India.

Dr. Arlidge, a physician at the North Staffordshire Infirmary, said scrofula was very prevalent among children (an indication of over-work and bad living) with general weakness and debility of body, glandular and joint diseases. The mortality of the Potteries district from chest diseases and consumption was almost the highest in the kingdom. Judging that persons going to the Infirmary had the appearance of being fifty or sixty years of age, he found on enquiry that they were only about thirty years old. One man had told him that he was sixty-three and claimed to be the 'oldest potter in Longton.'

Public meetings were held in different parts of the district and many were the opinions expressed, Mr. Ridgway saying that it would be desirable 'to give the Factory Act a trial in the Potteries.' This was an Act of 1833, which prohibited child labour under the age of nine in textile factories and limited hours of work to nine a day for children between 9 and 13 years, twelve hours a day for a 69 hour week for boys and girls between 13 and 18. The Act did not extend to the pottery industry until 30 years later.

In Longton, manufacturers, in 1863, were demanding that children should bring a certificate that they could read and write (a move in the right direction) for there were 439 boys and 405 girls under the age of fourteen employed in the potteries of Longton. Of these 392 boys and 128 girls worked as assistants to adults as paper cutters, mould runners, jigger turners, and so on. Forty-seven boys and 277 girls worked independent of adults and were known as apprentices. At this time only 15 boys and 27 girls were under nine years of age and 35 boys and 58 girls between nine and ten years. The average working hours of all the boys was just over $53\frac{1}{2}$ hours, and of the girls $49\frac{1}{2}$ hours a week. Thirty-five per cent of the boys could read and write and thirty-nine per cent of the girls. Twenty-five per cent of the boys and thirty-seven per cent of the girls could read only. Sunday School was attended by 79% of the boys and 87% of the girls. Night school was attended by $8\frac{1}{2}$% by the boys and 11% of the girls. It was also found that 16% of the boys and 20% of the girls were without fathers, whilst $8\frac{1}{2}$% of boys and 8% of girls were without mothers. Of the total of boys and girls employed in Longton potteries 294 were mould runners and jigger turners. The picture in Longton seemed brighter, but in September 1863, several Longton manufacturers held a meeting with Mr. F. H. Hawley, Chief Bailiff of Longton and also a pottery manufacturer, in the chair. A unanimous decision was reached to resist any Government Legislation with respect to the labour of children employed in the potteries. It was said that three-fourths of the boys were employed by the men, and not the masters. The Potteries Chamber of Commerce proposed that

children be kept from work altogether until they were ten years of age and then to require an educational certificate. The suggestion was not popular. The manufacturers said it was not beneficial—possibly not—for there were 4,500 children under thirteen years of age doing useful work for them in the potteries in the year 1864 !

One writer goes so far as to state: 'There were 593 children aged five also employed and that their hours were from 6-30 a.m. to 6-30 p.m.'

That the time was coming when something definite had to be accomplished is borne out by facts even more serious than the actual employment of the children—that of the mortality rate in the Potteries in 1864. The mortality of Stoke exceeded the average of all England by upwards of 7 annually per 1,000, and by 10 that of country districts. The relative mortality of males to females was higher in Stoke than in England as a whole. The death rate of infants under one year of age was half as high again in Stoke as the average for England. The deaths under 20 years of age to the whole mortality of all ages were 65½% and those of children under five years equalled 52%.

Of 1,000 deaths under 15 years of age, there were 32 more among children in their first year in Stoke than in England at large. The deaths from diseases of the chest and consumption together at all ages, in Stoke, exceeded those in England by 3.26 in every thousand individuals. Among 100,000 adult males living aged twenty and upwards, 505 in Stoke died from diseases of the chest as well as the same number from consumption; whilst in England the proportions were for diseases of the chest 339, and for phthisis 373. Adult females died in Stoke in the ratio of 323 from lung diseases and in that 461 from consumption and in England in that 259 for the former and 349 for the latter diseases. Of children who died under 10 years old, 22.61% perished from diseases of the lungs and consumption together, and of individuals above ten years old, 41.52% were cut off from the same cause. The deaths of adult male potters (ages 20 and upwards) with reference to the whole number of such workmen alive at the same period, was 3.00%.

The mortality of male potters between 50 and 60 years old constitutes nearly one-half of the whole male mortality in that period, whilst their proportion in the male population was under one-third. The ratio of deaths among potters rose progressively to the sixtieth year. Between their fortieth and sixtieth years one-half of the whole number of deaths occurred amongst them. Eighty-three per cent of adult male potters die before completing their sixtieth year. The mean age of the adult male potters was 46½; whilst that of adult men in all England equals 56.

Consumption and diseases of the lungs were the causes of death in 13.5 per 1,000 male potters, or 1,350 in 100,000 compared with 1,010 in all the male adult population of the parish. Over 40 per cent of the whole number of deaths from diseases of the respiratory organs among adult males of all occupations happen among male potters. Among male potters themselves, nearly 60% die from diseases of the respiratory organs.

Something definite was being accomplished despite prejudices and resentment. Already functioning was the Children's Employment Commission, appointed by Parliament in 1861, on the initiative of Lord Shaftesbury, backed by public opinion to make an inquiry into industries not yet regulated as to their labour. To this Com-

mission a ten year old boy gave evidence telling of his life in the Potteries. He said that he had already been working for three years in a pottery and had never been to school. Starting work at six in the morning and finishing at six in the evening, he received 2s. 3d. a week for his labours.

In the same year of the mortality figures quoted (1864) the Factories Acts Extension Act was recorded on the Statute Book extending the provisions of the Act to the pottery and other industries. The Act required that the works be kept clean and well ventilated. It was found that when children between the ages of 9 and 13, who had worked half-time in the pot-works were required to attend school in 1865, only 25% could read. The new Act was successful in preventing much of the suffering of the children and most of the evils mentioned in this chapter were to a great extent reduced or done away with and, so far as the children were concerned was the nearing of the end of a long road in the working conditions in pottery works of the Stoke area.

Inspectors, under the Workshops Regulation Act, saw to it that the meaning of the Act was carried out. In addition old evils, such as the public-house method of paying wages, began to pass away with the improved conditions.

In Hanley, in 1869, Mr. Roberts, an inspector under the Workshops Regulation Act, said. 'I have inspected about two-thirds of the Borough and found one hundred and thirty children working therein, who with the exception of fourteen, were not attending any school.' He reported that one hundred workshops required immediate renovation, many never having been, since erection, white-washed or cleansed in any way whatever. Orders were given by the inspector for this work to be carried out by the owners. He also ordered 'privies' (lavatories) to be built where none existed. At Stoke there were 12 brick-yards from which, by use of the Factories Act, forty-five children under thirteen years of age had been sent to school.

Child labour was to continue for a number of years before Factory and Education Acts saw the abolition of child-labour in the Potteries. It should not be thought that children worked only in the pottery works. They were employed in brick-yards, in coal-mining, in iron-works in the district and in the sweeping of chimneys—a Dickensian form of labour that survived in the Potteries to well into the nineteenth century. One feels that it is of interest to record what few facts one has available on this matter.

Despite an Act of Parliament passed in the year 1840, and which came into force on July 1st, 1842, to prevent the use of children for chimney sweeping, this shocking and barbarous practice continued until at least 1865. Associations were formed in the Potteries to assist in the work of prevention, for the laws of the Act were seldom carried out except where it was enforced by a policeman on the spot at the time of the offence.

One witness, writing in August, 1856, said: 'Look again at the wretched creature (child) crawling like some noxious reptile, encrusted in filth from the hair of the head to the sole of the foot, and blotched over with sores and ulcers; how came it so? Where does it sleep? Upon what is it bed? . . . and for what? Why, under the false notion that our chimney may be more easily swept . . . we see a great hulking fellow with a machine over his shoulder, for a pretence, and two or three little children some yards in advance or in the rear of him. The children are too small and weak to do anything but be forced up chimneys.' In addition these mites could be seen trailing

the streets of the Potteries carrying or half dragging heavy bags of soot. 'We see this outrage daily, yet the Act of Parliament makes it illegal for any child, or young person under the age of twenty-one, to ascend or descend a chimney, or enter a flue to clean it or to extinguish fire therein.' Children under 16 years of age could not be apprenticed to a chimney sweep under the Act which had also a clause regulating the construction of chimneys.

One of the reasons this disgrace was perpetuated in the Potteries area was because it was said to be difficult to obtain actual evidence of the offence! The helpless children used for the purpose were 'either stolen or purchased to be brought up in crime and cruelty of the worst description!' Indeed if a child became stuck in a narrow chimney and petrified with fear, he was sometimes induced to fight for his release and perhaps his life, by the sweep lighting a fire in the hearth beneath him. The penalty, when it could be inflicted on the cruel adult sweep for using boys for chimney sweeping was not to be less than £5 and not to exceed £10. It was said in 1857, that there were still 5,000 'climbing boys' sweeping chimneys in England. Happily the evil was on the wane, opposed by the law, by influential people and by a paper published monthly in defence of the boys. This paper was entitled 'The Climbing Boys' Advocate,' by Judd & Co., of 21, Paternoster Row, London, and priced at one half-penny.

In the Potteries, on August 5th, 1859, the first annual committee meeting of the Hanley branch of the Association for the Suppression of the use of Climbing Boys in Sweeping Chimneys was held in the Town Hall, Hanley. For three years this society had attempted to suppress the use of climbing boys by bringing a chimney-sweeping machine into competition with them, but owing to the difficulties inherent in the management of a commercial matter by a society, this was given up in 1858. The society then turned its efforts to obtaining for the law evidence of such offences which infringed the Act. Mr. F. Wedgwood, chairman of the association, speaking at the annual meeting of the association held in the Town Hall, Hanley, in 1861, said that the three reports which Mr. Peter Hall, the inspector, had given on the matter were very satisfactory. Mr. Hall had reported that conditions were rapidly improving. There were thirty-six chimney sweeps in the district in 1861. The previous Spring Mr. Hall had found only four boys employed and these were all over 17 years of age, 'an age at which they can scarcely be sent up chimneys against their will and at which age the Act permits their being apprenticed to the trade.' He had the satisfaction of stating at the meeting: 'By last Autumn this number has declined to two boys —and that at present so far as I am aware, there are no boys employed by any of the sweeps.'

In accordance with the Act the chimneys of homes and factories in the Potteries took on a new look. Their sizes were altered to comply with the law and quaint old kinks and bends passed away, so that we are unlikely to find any medieval types of chimney in the remaining old buildings in our city.

The society had at first obtained its supporting subscriptions from the people of Hanley and Shelton, but by 1859 they were coming from the whole Potteries and Newcastle district, 'in order to maintain a vigilant inspection in the neighbourhood.' Mr. Gilbert Wedgwood of Etruria was secretary, assisted by Mr. Allbut of Hanley.

Thus by 1861 the Potteries was clear of this evil, whilst in some other parts of England it continued for there were only such charitable individuals and societies which employed a permanent inspector to bring cases to the notice of the police for prosecution. The society continued to exist under its original title, doing good work in the enforcement of the chimney building regulations under the Act which ensured that the necessity of using boy chimney sweeps would disappear for all time. In this respect the society was vigilant to the end.

Children—Other Evils

There were many social evils outside the pottery and other industries. One of these, the selling of intoxicating drink to children, was quite commonplace at the time, but incredible to the generations of the mid-twentieth century.

One might say that the public-house was seldom closed in the mid-nineteenth century—indeed beer-houses multiplied and 'tuppeny 'a'-penny' beer-houses appeared in many streets. A man would get a barrel of beer into his coal cellar and he became a beer seller. These places were joined by 'Singing Saloons' also to be found in the mean streets of the Potteries, where young people, between the ages of thirteen and sixteen, drank beer and sang in a semi-drunken state.

Not the least of these alcoholic evils which was rampant during the latter-half of the nineteenth century was the Illicit Whisky Still, the products of which constituted a danger to children and adults alike. The liquor turned out by these crude distilleries was both potent and deadly. There were many of these stills to be found in the murky streets of the Potteries and in 1850, one John Shields of Hanley, bore the title of 'The Prince of Illicit Distillers' and was considered the head of the illicit whisky trade in the area. He, with his wife, had many times suffered the penalties of the law for their unlayful practices. When caught in the act the still was found 'in full work' in a back room in Shields's house in Slack Lane, Hanley. When charged Shields said with considerable earnestness: 'I am an unfortunate man,' and so the sequel proved, as apparatus, together with eight tubs and two gallons of spirit were seized and a conviction secured with a penalty of £30. In default of this fine Shields was sent to prison for three months.

At various prices the workers in the Potteries obtained a crude whisky which rapidly made them 'roaring drunk.' This extraordinary state of affairs went on spreading despite the efforts of police and excise officers. In March 1850, a large still was found in the cellar of the house of Moses Simpson, a boot and shoe repairer, in Pall Mall, Shelton (Hanley), together with a new still, not then in operation, in another part of the house, one hundred gallons of 'wash,' with a quantity of molasses, several tubs and other requisites for the trade. Simpson pleaded that he had done this to keep out of the work-house.

On occasions it was not the law which dealt with these miscreants for in February, 1851, Robert Dunn was blown up in an explosion in his illicit still at his home in Chapel Fields, a notorious area adjoining Bryan Street, Hanley. Mrs. Dunn said her husband carried on the business of a tin-plate worker in Chapel Fields. He made the apparatus for many, if not most, of the illicit stills in the neighbourhood. Early on the Saturday morning she heard a noise and thought it was the side of the house

being blown away, followed by a shout from her husband of 'Murder' and she shouted 'Murder' too. In great pain her husband walked from his house near the Black Horse Inn on his way to the Infirmary (then situated at Etruria) but, unable to walk all the way was taken by conveyance to the institution where he died from his injuries.

In view of all these sources for obtaining drink, of which beer was the main demand, it was hardly surprising that at one Longton pottery, 60% of the clay-hands were habitual drinkers and many of them failed to turn up for work on a Monday morning after a week-end of drinking. In this particular instance the master sent one of the small boys employed at the factory to tell these men that if they did not put in an appearance they would be suspended for the remainder of the week. The men were found at a public-house and ignoring the boy's pleas plied him with drink. As often as they took a drink the boy had to do the same. Completely drunk, the boy staggered from the inn, accompanied by the shouts of laughter of the men as he tried to reach his home at Fenton. 'He had not gone far before he fell in the gutter, cutting his face and forehead. There he lay in a dazed condition until a man who was passing picked him up, scraped the mud from his clothes and cared for the boy until he was sober enough to walk home. When he arrived his mother put him to bed, where he stayed for many hours. He was unable to go to work the next day.'

It was commonplace for the potters to drink on the premises where they worked, even though this was forbidden, and many ways were taken to evade detection. It was usually the boys who were sent to get beer from the public-houses. If the boys were caught there followed, at least, a 'torrent of curses hurled at the poor lad who had been so unfortunate.' Temperance associations in the Potteries did their best to entreat parents and guardians not to send young children for alcoholic liquors, and 'we plead with licencees to discourage the pernicious practice by refusing to supply the poor little helpless creatures over whom there is apparently no kindly domestic control.'

In December, 1897, the Longton branch of the British Women's Temperance Association presented a memorial to the justices of the borough entreating that licencees should not be allowed to supply alcoholic liquors to children apparently under 13 years of age. The justices agreed on principle, but at a later meeting 'deliberately and wilfully over-ruled what the first meeting of the justices had done and rejected the memorial.' This was said to be largely due to a circular issued by the United Parliamentary Council of the Retail Liquor Trade and sent to every justice in the borough. Influenced by the circular, which according to the Reverend J. Fleming, in 1898, was one of the most ignorant productions that had ever been issued . . . full of grammatical inaccuracies . . . and issued by people who were morally blind, they reversed their action of the first meeting. Millicent, Duchess of Sutherland, wrote in 1898 saying: 'I can think of no wiser nor more necessary step than to stop the sale of intoxicating liquors to little children. Their lives are hard enough, God knows, without this fresh snare on the pathway of their youth.'

It cannot be doubted that the police did their best to deal with these difficult situations, but unless they were backed up by the magistrate their efforts would come to little good. Later, under a separate heading, we shall learn more of the very interesting history of the police in the towns of the Potteries.

Lest the public-houses, and the drink obtained there, should be blamed for all the suffering of the children, one must hasten to point out that such places doubtless had their good features. In the inns of today (1958) where good company is to be found, generous patrons give liberally to raise funds for many good causes, assisting the work of hospitals, the North Staffordshire Spastics Association, and even provide, with the aid of the licencee, Christmas parties and outings for the pensioners in their area. As will be seen later in this work the root of the evil and also the remedy lay within the home as it ever will.

Baby farming was prevalent in the Potteries in the year 1888. It was not unusual at this time to find five or six children being nursed by one woman. It was pointed out to one of these 'baby minders' that one of the children was very ill and dying. She took the matter very coolly, simply remarking: 'Do you think so?' Parents would insure their young children with an insurance society. Indeed both parents and 'nurses' have been known to insure children in as many as four societies at the same time. Instances happened in which two children of one mother had died in the same week and their deaths certified by different doctors and the insurance collected by the parents. The law prevented a child under three months old being insured in more than one society for a maximum of 30s., the premium payable for this benefit being at that time 1d. per week.

At this date in the Potteries, child mortality was the highest between the ages of three months and five years of age and the law allowed insurance up to £6 between these ages, which could be increased by fraudulently insuring with more than one company. The system of baby farming was encouraged by the employment of women as cheap labour in the manufactories, so that soon after their confinement mothers would farm out the baby and their young children to professional baby 'nurses' in order to return to the 'pot-bank.' Many such 'nurses' cared little for their work, but only for the financial reward. If all else failed to quiet the baby, 'Mother's Friend'—whose principal ingredient was laudanum—was used, which was said to be sold to an alarming extent in the Potteries. At an inquest in Hanley in 1888, on one of these unfortunate children, it was stated that one chemist alone sold several gallons a day of the solution. It was also stated that almost in all cases these children were cared for by the 'baby farmers,' were insured by them, and often by the parents as well. An old woman baby farmer was at this period such a frequent visitor at one of the insurance offices in Hanley that she became known to the officials as the Thirty Shillings a Week Woman. The Act, passed in 1872, to regulate baby farming, appears to have had little or no effect on the evil profession.

The twentieth century was to bring many improvements in the status and treatment of the children of the Potteries. Changes in the Factory and Workshops Acts of 1878 and 1891, resulted in important changes being brought into operation in 1892 and 1893. This affected children as well as adults. After January 1st, 1893, no child could be employed in the Potteries under the age of eleven years. Birth certificates would have to be shown and these were available to all young people under sixteen, at a fee of 6d. These extending Acts did much to improve the problem of child and adult labour in the Potteries. Indeed, a considerable number of extending Acts were passed, up to the end of the nineteenth century, which gave increased powers to the factory

inspectors and also brought into being medical branches able to deal with lead poisoning, and 'Potters' Rot' (silicosis) so prevalent in the china and earthenware industry. The Factory Act of 1901, was considered to be the start of a new era in working conditions in the district, followed in 1937 by an Act which established the factory conditions we know today.

Before leaving the study of the children of the Potteries it will be of interest to visit the 'Bastille.' Today, under the pleasant title of Westcliffe Hospital, the Chell Workhouse at Turnhurst, known in the nineteenth century by the dreaded name of the Bastille, was a place to which one went as a last and extreme resort. One author writing of his own unfortunate visit to the institution as a child said. 'The very vastness of it chilled us. Our reception was more chilling still. Everybody we saw and spoke to looked metallic. Doors were unlocked by keys from great bunches. Doors banging froze the blood within us. "No softening gleam" fell upon us from any quarter!'

Arrival at the Chell Workhouse meant an immediate visit to a large bare cellar where the children and adults were washed in cold water and put in workhouse attire, covered, in the case of a child, by a rough linen pinafore. Parents and children were then separated, amid heart-rending and pitiful cries, and sent to their respective living quarters and were only permitted to meet for a precious hour on Sunday. The children assembled for meals in a large room, used for the purpose of a dining-room and schoolroom, presided over by the 'schoolmaster' who asked God's blessing on the food which he himself was careful not to eat—'those few lumps of something in greasy water.' Tea and supper were one meal, 'a hunk of bread and a jug of skilly' (meal and water) devoid of sugar and salt. After supper the schoolmaster read prayers. 'He was always militant and menacing. His face, to all the appeals rising from the faces of these poor children, was as chilling as the grey of a winter's sky.' The communal bedrooms, long narrow rooms, so typical of Chell work-house, had rows of beds on each side. At the end of the room was a tub. Some of the boys 'were as cruel as neglect and badness could make them' and woe betide any shy lad seeking the use of that communal tub at night. Sunday dinner consisted of a special treat. On the table 'lay a small hunk of bread, a small plate with a small slice of thin, very thin, cheese and some jugs of water. Insubordination or high spiritedness sometimes resulted in a dreaded work-house flogging; a flogging in the presence of the other boys, with a rod which had been pickled in salt water. After a speech on the evils which possessed the wayward boy, the child was stripped to the waist and held firmly across a table by four of the biggest boys. In the yellow and sickly candlelight his heart could be seen beating rapidly against his poor thin ribs. As the rod fell the 'lad struggled and screamed—and red stripes were seen across his back—tiny red tricklings following the course of the stripes. The spirit of the New Poor Law and of the Corn Laws was presented in that torture room that night.' Such was the scene in the Chell Workhouse, about 1840.

As the nineteenth century drew to a close, the welfare of children engaged the urgent attention of the more enlightened people and social workers of the Potteries, and later we shall see how education and understanding brought new hope to such inmates as were found in the Bastille.

For information see overleaf

1. Old King and Queen Inn, Sneyd Street, Sneyd Green, in 1892. It is now a private house. Note the ring used in Bull Baiting.

2. Roe Buck Inn, Trinity Street, Hanley. The building, known as "The Central," housing Bratt & Dykes, was erected on this site in 1896.

3. An all too frequent occurrence in the Potteries in the nineteenth century—a drunken man is wheeled out from the rear entrance of the Roe Buck Inn, Hanley. A typical example of drunkenness and brutality was told to me by Mr. Tildsley of Marsh Street North, Hanley. Bagnall Square, a block of squalid houses approached by a narrow entry at the northern side of Mr. Tildsley's pawnbroking business, was about the year 1905, the scene of many fights. The windows of the houses were broken almost daily, especially at weekends, and police approached the occupants in two's. Here, said Mr. Tildsley, Mr. "A" a man with a wooden leg followed his wife past the pawnbrokers to the little general shop next door, hurling throughout the short journey, a constant stream of the most foul language at the top of his voice. The grim faced women said not a word but entered the shop to purchase a bundle of sticks to start a fire in her house already made more cold by the broken windows. On leaving the shop Mrs. "A" dashed the bundle of sharp twigs into her husband's face—the attack carrying her to her knees. Momentarily the foul cursing of the husband stopped. Blood poured from his cut face—miraculously his eyes were not damaged. In agony he lunged furiously with his 'peg-leg' at his wife sprawled on the dusty road, severely cutting the back of her head. Between them they were a truly bloody sight—yet a few hours later they were together contentedly sipping their ale in the nearby public house. Today habitual drunkenness and brutality are not commonplace.
Also in the picture is the scaffolding used in the erection of the stone-built Sentinel Newspaper offices in 1887—an addition to the printing works which opened into Brockley's Square.

4. Despair and fear ? A scene at the corner of Boothroyd Street and Bagnall Street, Hanley, in the 1880's. The house, No. 1, is still there.

5. Outside the Victoria Hall, Hanley. Life in the late 19th century.

6. A well loaded brewer's-dray in London Road (by Minton's), Stoke.

These valuable photographs are by unknown people. They form, as do all the pictures in this book, part of the author's collection.

In Hanley in 1898, one found such benevolent figures as Miss Jermimah Lord, a schoolmistress at York Street Board School, giving lectures to assist in raising money to provide shoes for the poorer children attending that school. The initiator of this scheme which spread throughout Hanley, was Dr. R. Read, chairman of the Hanley School Board. Later, the provision of spectacles for children was added to the scheme, which had become known as the Hanley Boot and Spectacles Fund, and by 1913, an average of £75 was being spent on such articles—a considerable sum in those days. Gradually the barefooted children, running through the streets of the six towns, began to appear better shod and to enjoy the parks and playgrounds that were being laid out in the district.

Yes indeed, the life of the little bare-footed children in the towns of the Potteries was improving. Between 1900 and 1950, the general decline in infant deaths was, on average, between 70 and 80 per cent! At the time of Federation of the Six Towns in 1910, 149 of every 1,000 infants born alive in Stoke-on-Trent later died. By 1952 this had been reduced to 28 per 1,000. Starvation, neglect, diphtheria, scarlet fever, all so prevalent at the beginning of the twentieth century, have almost disappeared.

In 1952 there were 17 ante-natal clinics in the city, at which 42 sessions were attended by doctors and 82 by mid-wives. There were 33 municipal mid-wives, in addition to health visitors and domestic helpers. There were home nursing and day-nurseries for children whose mothers went out to work.

In 1954 almost five-hundred children were in the care of the city for various reasons including desertion, illegitimacy, lack of accommodation or parental illness. Boarding-out of children, placing them in foster homes, approved school, after care and juvenile court work have all assisted in the care and welfare of the child. Parents are taking increasing advantage of the health service and in 1955, 18,724 children from primary and secondary schools, were medically inspected, 2,817 received attention for orthopædic defects, and 8,719 were X-rayed for possible chest complaints. In addition, 2,871,044 dinners were provided for children at 186 schools—an average daily number of 15,460 meals. There were 2,168 children attending the 14 nursery schools and 54 nursery classes, at which a school doctor attended each term and a nurse weekly. Handicapped pupils attend special homes of which there are several in the nearby countryside. These are now (1959) but a few of the advantages a child has from its birth in the City of Stoke-on-Trent—an amazing contrast with life in the district in the nineteenth century!

Adult Life in the Potteries

If the life of the children in Stoke-upon-Trent was deplorable during the Industrial Revolution, what of that of the adult potter, the miner, the iron-worker and those employed in the numerous smaller industries and shops in the district? One can only present a comparatively short account.

It was not until 1824, that pottery workers, urged on by the political reform brought about between the years 1817—20, attempted to improve their working conditions by the formation of a first Potters' Union, its purpose to obtain some standardization of wages. The following year many of the workers came out on strike for an increase in wages. New and inexperienced, the workers had to return

to work, in many cases on worse terms than before and the effort collapsed in dismal failure. Indeed, strike leaders had considerable difficulty in obtaining employment at all with some of the strutting, top-hatted, swallow-tailed coated employers—a type of new-rich who dominated many of the manufactories of the time.

There was however new hope, for an Act of 1824 repealed " an accumulation of five centuries of enactment directed against labour . . . Trade Unions were freed from the ban of the law." A new union came into being in 1833. A Standing Committee was formed to meet weekly " to fix the prices of workmanship . . . and to settle all disputes . . . . " The new union and committee met with the greatest opposition from the main body of manufacturers who refused all concession to their men resulting in a strike in 1834, from which was gained a 25% increase in wages. Unfortunately they made fresh demands and the employers who previously had been partly split as a body, formed themselves into a single body in March, 1836, by the formation of their own 'Union,' The Potteries Chamber of Commerce.

The strike that came in September, 1836, was known as the Great Strike. To follow the detail of this strike and also the history of the Union, those interested would do well to read " The Staffordshire Potter," a book by Harold Owen published 1901.

The distress caused by the strike in the Potteries, which lasted twenty-one weeks, was acute, but was considerably alleviated by the work of the then recently formed Board of Guardians of Stoke-upon-Trent, in which parish the workmen of fourteen manufacturers were on strike with the loss of some £2,560 in weekly wages. Of the one hundred and thirty pottery works, 64 of the largest were affected by the strike in which 20,000 operatives were workless. Weekly wages lost amounted almost to £14,000 and seven-ninths of the labour engaged in the trade was unemployed.

David Colclough, governor of the Stoke-upon-Trent Workhouse, said that those out of work were required to be at the workhouse from 8 a.m. until dusk. Some had to walk from four to six miles to get there. Often the whole family went. The men were employed in the fields, the women at household work and the children attended school in the workhouse.

The funds of the Potters' Union only allowed five to six shillings a week to men having families dependent on them. Nothing was allowed to a woman or to a child pottery worker. The majority of the potters were firm and devoted to their cause and struggle and every available piece of household property and treasures were sold to prolong the strike. The money was " brought to common centres and immediately disposed of for the general good of the cause," but a large portion of the men returned to work leaving the remainder to carry out a losing battle. Eventually a conciliation meeting under the benevolent impartiality of the chairman, Mr. Twemlow, a county magistrate, was held at Betley. Some satisfaction was obtained on both sides, but " the masters still insisted upon retaining the system of payment by " good-from-oven," but they did consent that all ware declared to be bad by the fault of the maker should be broken; and that all ware damaged otherwise than by the maker should be paid for; and that the men should be allowed to draw on account, weekly, a sum equal to two-thirds of the value of the

ware from their hands then on the premises, unfired." Work was resumed in general on January 20th, 1837. It had been twenty-one weeks since those employed at the first fourteen factories had struck work and ten weeks since the more widespread strike. It ended in another break up of the Potters' Union.

A contemplated reduction of wages by the manufacturers, in 1843, resulted in the potters forming another union and each town in the Potteries had its own lodge to meet the convenience of the members in each town. The new body had no illusions, rather did it set about its business in a grim and determined manner. It started its own newspaper conducted by the members of the Central Committee. The paper was conducted with fairness, impartiality and dignity. Published in Longton the paper continued, under various names, until 1892. It became known as the Potteries Examiner. Also merged into it was a paper named The Potter (1854—1863). It attacked employer and worker in turn for their faults and had a moral and religious attitude. The idle, drunken and immoral worker came in for severe criticism. It served a union which, having learnt from the failures of previous unions, followed a moderate middle course and did much to improve conditions and relations between the master and men.

The advent of machinery in the Potteries, about the year 1845, caused consternation among the workers whose vision was always marred by unemployment. It came in the form of a machine, used by Mr. Ridgway, that could make toilet paste-boxes. It was followed by a machine which displaced the flat-pressers—one of the largest branches of the industry. The union was alarmed at the unemployment which members felt was bound to follow. The union grew in strength and non-members hurried to become members. The result was an amazing scheme, the raising of £5,000, to purchase land in America on which to land a colony of unemployed potters!

As the introduction of machinery progressed, so were more unskilled women employed to work the machines, at lower wages than the men.

In May, 1844, the Potters' Joint Stock Emigration Society was formed and registered. Twelve thousand acres were to be purchased to be divided into sections of twenty acres each, five of which were to be cultivated and built on by the immigrants. Members, to emigrate to Pottersville the name of the new settlement in Wisconsin (an Indian word meaning gathering of the warriors), U.S.A., were chosen by ballot. William Evans, a member of the union and editor of the Potteries Examiner, was the spur behind the movement. It became an obsession with this energetic and godly man, who saw in his scheme a golden age for the poor potter whose working life was about to be terminated by the introduction of machinery. As the total sum of money required was not forthcoming, 4,000 acres were at first purchased and early in February, 1846, the estate steward, a deputy and several other officials set sail for New York, a journey which took almost six weeks.

The union was again experiencing difficulties. Many were suspicious of the Emigration Society. Lodges were broken up and the hollow-ware pressers, formally staunch supporters and pioneers of the scheme, decided upon " a separation of the Emigration Society from the proceedings of the Union." The union broke down and in 1846, a new union was formed—the Potters' General Union.

Two years passed and lonely land officers in Pottersville were asking for more money to carry on the scheme. Their frantic anxiety was finally relieved by a further £600, " then whilst they journeyed, for days and weeks over the prairies of Wisconsin, seeking the authorities to whom the purchase money had to be paid, losing themselves in forests and encountering Red Indians, the potters in the six towns were preparing to send them " the long-talked of Estate Committee." In the new year of 1847, purchase of 1,200 acres was completed.

At last the Committee set sail in a canal barge to Liverpool on the first stage of their journey to Wisconsin. Numbering forty with their wives and families, they were cheered by thousands who stood on the canal side to watch their departure. Barges of cheering pottery workers followed them on their journey from Etruria, via Longport and Burslem. Some of the barges contained bands who played suitable music for the occasion. The accompanying barges returned at dusk. A reduction in wages of the working potter was received with despondency which was to make itself felt in Pottersville, and by 1848 the union had again " practically ceased to exist and the Emigration Society was fast coming to an end."

In Pottersville, the Land Officer and Estate Committee were quarrelling. Funds from home dwindled to a trickle and finally stopped altogether as the society collapsed and in June, 1849, the few families in Pottersville were left without hope to fend for themselves. At home the manufacturers had abandoned the use of the not very satisfactory machinery for it seemed (the new machinery) the reason for the formation of the Emigration Society, " died a temporary death."

The final disintegregation of the union and the society, brought about a twenty year period of low wages, in which the individual manufacturers made their own terms.

However the use of machinery in the pottery industry increased and men saw their wages suffer in consequence. Boards of arbitration did much to assist in a fair hearing for manufacturer and worker, but such boards did not remove the necessity of a union and in general they had ceased to exist in 1895. In 1882, the National Order of Potters was formed. The employers too formed the Staffordshire Potteries Manufacturers' Association, as distinct from the North Staffordshire Chamber of Commerce, whose members by this time consisted of those from the iron and coal industries.

As the reader will have gathered, many attempts were made to form satisfactory unions and following the period mentioned, in 1882, Mr. William Owen tried to establish a National Society of Pottery Workers—a uniting of the smaller craft unions. The attempt was not very satisfactory and the craft unions continued to exist. Indeed it was not until 1906 that a further serious attempt was made to bring about amalgamation. Quite a large number of small societies existed such as those for the turners, hollow-ware pressers, flat pressers, handlers, printers, transferers, engravers, decorators and others associated with the general earthenware and china trade. Thus in 1906 the amalgamation took place and almost all the small unions joined, with the exception of the Dippers' Society, Ovenmen and Packers' Association. One year later the foundation stones were laid in Old Hall Street, Hanley, of the official premises of the Male and Female Pottery Workers' Society. It is interesting to note

that the building stands on a portion of the ground once occupied by the Old Hall Pottery factory. Nothing remains of this pottery, the site of which is occupied by Rataud's Ceramic Transfer Works and Harrison's Phoenix Colour Works. It was bounded on the east by Old Hall Terrace and on the west by Meigh Street which perpetuates the name of the founder of the Old Hall works. It is possible that the lodge-like building in the fork of the two roads, used today as a Wright's Pie shop, may indeed have been connected with the works. Behind this building and several cottages, was Moseley's wood-turning works, the premises of which have recently been rebuilt and converted into the Pottery Workers' Club, which came into use in March, 1958. Hill Street (Hillcrest Street) bounded the old works on the south and this street continued into Bucknall Old Road to Bucknall before the Bucknall New Road was cut. The pottery had been built in the grounds of the Old Hall of Hanley, once owned by the Bagnall family.

The new Pottery Workers' building, having a frontage of fifty feet in Hill Street, was well equipped and included a residence for the secretary. The foundation stones were laid with a silver trowel on a blustering wet Saturday in November, 1907, by Mr. Samuel Clowes, the president of the society, Mr. William Owen of Porthill, and Miss S. Bennett of Burslem. Behind the names lay the pioneering spirit of the trade union of the Pottery Worker. The name of Clowes calls to mind a life long work to better the working conditions of the operative potter. Mr. Clowes was also sent by the Potters' Union as its representative to the Potters' International Conference, at Limoges, in France.

Mr. William Owen, who left the potter's lathe about 1866 to become editor of the workers' trade paper, had laboured for twenty years for the society, whilst Miss Bennett was a lady whose interest lay in the women workers, who until about the turn of the century, had had little interest taken in them by the pottery unions and societies. This was indeed necessary for, in 1907, there was still a large number of pottery workers not in the society!

It was recalled at the ceremony, by Mr. Owen, that a short strike in 1865 had resulted in the evil system of annual hiring being abolished so that a man was no longer forced to engage himself to one master without the power to leave by a month's notice. It was a common happening for potters to be imprisoned for breaking this year-contract with the masters. Also the system of "good from the oven" had been put on a more practicable and honest basis by workmen being paid for all bad ware, as well as good, which came from the oven, other than that caused by the workmen's own fault.

The year 1920 saw the last remnant of the craft unions join forces with the National Society of Pottery Workers, which now represents the whole of the industry and of which there are branches all over the British Isles. At that time there were eight permanent officials with Mr. Samuel Clowes as General Secretary.

The Whitley Council, formed in 1916, did much to improve the relations between employers and workmen and this was followed in Stoke-on-Trent by the Pottery Council in January, 1918, whose main object was to foster the aims of the Whitley Council—the regular consideration of matters affecting the progress and well-being of the pottery trade from the point of view of all engaged in it, particularly the

health and welfare of the workers. The first chairman was Major Frank Wedgwood, with Mr. S. Clowes, vice-chairman.

If child labour, starvation wages and excessive alcoholism were sins of the Industrial Revolution in the Potteries, the tragedy of the scourges of the potters—lead poisoning and potter's rot (silicosis)—was felt by many of the 46,000 people, of whom almost 21,000 were women, at the turn of the century. Lead was used in glaze from a very early period, although much early ware was fired with salt which contained no lead. The finest glaze contained lead and many of the processes involved in the manufacture of the ware were most deadly, especially the work of the dipper—a work which the law had permitted children to be engaged at the age of 14. In some cases the child would suffer convulsions and die from lead poisoning within two or three months of their starting work as dippers.

One of the most important movements in dealing with this scourge and other matters affecting the health of the working potter was when a deputation of these men was organized by Mr. William Owen, in 1891. Members of Parliament in London were interviewed and as a result of this action the " dangerous-trades clause " of the Factory Act Amendment Bill was passed, and all the amelioration in the condition of work in the Potteries was made possible. This and an Act, which came into force on January 1st, 1896, demanded that manufacturers and doctors notify all cases of lead poisoning to the authorities. It brought to light in the first year of the Act over 380 cases. Of these, 78 were dippers, 70 glost placers, 78 ware cleaners, 10 majolica paintresses, 42 printers' transferers and 48 groundlayers. The symptoms were many, epileptic convulsions and blindness being perhaps the most severe, often followed by death. The " dropped hand " was a dreaded symptom for all to see as the victim walked the streets of the six towns. The hand was useless and this was the commonest form of paralysis in the Potteries. The poison did in fact effect almost every part of the body, lead actually being found in the brain. It caused premature births in pregnant women operatives and many of the babies were still-born. Dr. W. Dowling Prendergast, M.D., who made an intensive study of lead poisoning, quotes in a book that in 123 pregnancies, 73 were born dead; of these 64 were abortions, 4 premature births, and five born at their full time. Of the 50 born alive, 20 died the first year, 8 the second, 7 the third, one later, and only 14 reached the age of 10 years.

It was almost commonplace for workers to die, or become blind, after very short periods of work, although carelessness and lack of cleanliness on the part of the worker played an important part in contracting the complaint for lead entered the body by skin, nose and mouth.

In the year 1898, the Home Secretary spoke in the House of Commons on the subject of lead poisoning in the Potteries and an investigation on the spot was ordered. The blame for the non-observance of the rules was said to lie equally between employers and employed. Also in July, 1898, the Women's Trades Union League sent a nurse to the Potteries to carry out an investigation on their behalf. In two months she found 150 patients " whose symptoms corresponded with those associated with lead poisoning." The symptoms she found included blindness, insanity, vomiting, anæmia, the blue-line and many others. The number of cases

quoted in detail in the Sentinel newspaper were almost monotonous in their regularity had they not been so tragic.

Leadless glazes were liable to decomposition, they were not durable, and they lacked transparency and so the scourge continued, but the special rules, as applied by Factory Acts of 1894, amended in 1898, 1901 and 1903, were advantageous in combating more effectively the scourges of lead poisoning and silicosis, the latter largely caused by the dust from ground flint used in the industry. The Factory and Workshop Act of 1901, presented a new and important set of rules in great detail for the manufacturers, whilst the special rules of the 1903 amended Act, in which the final award of Lord James of Hereford, the umpire, was given, introduced a scheme of compensation for lead poisoning as an alternative to the use of exclusively low solubility glazes. Many firms decided to continue the use of unrestricted lead glazes and availed themselves of the alternative compensation provisions in their factories, and a semi-voluntary scheme of compensation for lead poisoning was established some time before the passing of the Workmen's Compensation Act of 1906, which made similar provision for lead poisoning contracted in factories. This was followed, in 1912, by a public inquiry by His Honour Judge Ruegg into this danger to health and whose award was embodied in regulations which came into force in 1913. The Acts of 1901, 1903, the enquiry of 1912, together with the Act of 1937 were considered to be of the greatest value and form the basis of the factory regulations in force to this day—a basis for the special Regulations (1950) for the health and welfare of the pottery worker.

The Miner

As the firing of pottery requires the intense heat given by the burning of coal, much of the coal used by the early potters was found very near to the surface of the ground. In addition, ironstone was mined for use in the making of iron in the blast furnaces of which there were a number in the district. The mining of both coal and ironstone took place in this district towards the middle of the seventeenth century. Dr. Plot, in 1686, writes of " the gaining of coal by means of foote railes." The price of coal in the district was 1s. 4d. a ton in 1686, 4s. 6d. in 1795 and 8s. 4d. in 1829.

Coal was mined in Tunstall at an early date, though not extensively until about 1830. Coal and ironstone was mined in good quantities in the Burslem and Cobridge district, also in Fenton and Longton. Many of the mines were operated in conjunction with the pottery works by their owners. A coal pit, in those early years, was considered to be very deep if it reached 300 or more yards.

The mining industry in North Staffordshire today (1958) is a vast concern providing employment for about 20,000 men using the most up to date methods of coal wenning. The days of the use of the pick, when coal was obtained by hand and transported in tubs filled by pit ponies who spent most of their life underground, has passed and the work, though hard and still dangerous, is not to be compared with the sweat, toil and hazards of the early coal miners whose clogged tread could be heard in the early hours of the morning as they walked the streets through smoke-laden air.

Let us take a look at the life of the collier (coal miner) in the Potteries at a period when these early conditions were well under way—namely 1850. At this time there were about 4,000 colliers in North Staffordshire, until an Act of Parliament (5 and 6 Vic., 1899) prevented the abuse of boys under ten taking part in coal mining. By this Act, the payment of wages in public-houses was also forbidden, to the annoyance of the " Buttie Collier " who often were publicans. These men employed miners and carried out contract work for colliery masters. To avoid this, the rascally butties would make payment in an adjoining building, or outhouse, and then expect the colliers to assemble in the Inn for drinking purposes. The same applied to the children. Some employers, despite the Act, would turn a blind eye when fathers brought their 8 or 9 year-old sons to work in the coal mines to gain the extra shilling or two they were paid.

About this time dog fights were a popular form of sport in the Potteries until well past the mid-nineteenth century, but it is difficult to give actual dates when bull and bear baiting last took place. Mr. James Baddeley, a Norton " Oddfellow " giving his reminiscences in 1909 at the age of 87, recalled how as a youth he walked to see bear-baiting in a field near to St. John's Church, Burslem.

Near to the Longton Hall Estate, about the year 1818, was a public-house called The Redgate which was noted for its bull-baiting and lurid life. Samuel Taylor, an aged Longton worthy writing in 1888, recalls " There, were assembled the lords of creation as howling demons, with dogs less brutal than their owners. A bull had to be baited, and the excitement was at its highest pitch. A great ruffian, called Bellat, leads the bull out amidst the greatest applause. Men howling, dogs barking, and we youngsters shouting at the top of our pipes. The bull is made fast to the stake and three dogs are let loose on the bull one after the other. They make for the bull's nose, but are soon seen high up in the air. The third and largest dog succeeds in seizing the bull by the nose by which he hangs never to leave go until he brings away the piece of flesh. The bull is frantic with pain. He tears round the ring, mad and furious, bellowing and roaring frightfully. Suddenly the alarm is given. He is loose, and is soon trampling over men, children, and all the rabble in his way. Having overturned everything and everybody he makes for his stable. It is Trentham Wakes and we are next treated to a prize fight between two local champions—Moses Edwards, potseller, and Charlie Hollins, collier. The smaller of the two men came out of the fight with little harm, while the big man was blind in both eyes, and one arm so damaged as to be quite useless."

" Besides cock-fighting, bear-baiting, and badger-drawing, there was to be a dog fight," continued Mr. Taylor, " between two mastiffs of enormous size. This was a fearful sight, and lasted a long time, the spectators gloating over it with savage glee. At length, one of the dogs fell dead, and the victor walked round his victim repeatedly to assure himself that he was dead. In a short time the dead dog began to swell, and was soon twice his natural size. Fights of all kinds were the pastime of the people of Longton, and it was rare to find a family where there were sons without a fighter of some degree."

At this period (1850), when trade was good, the earnings of the " thick-coal collier " was as much as 20s. to 30s. a week, and even during a depression, seldom

For information see overleaf

1. Fountain Square, Hanley, about 1890. The fountain can now be seen in Northwood Park.

2. Piccadilly, Hanley, about 1890. It was a muddy street lined with shops and public houses. Carts and carriages passed along it at intervals and after dark the glow from their candle or oil lamps fought to pierce the shadows, together with the light from the street lanterns—gas hissing from their bats-wing burners.

3. & 4. Two fascinating photographs made by Mr. Alfred Meigh, about 1895, in the Market Square. Hanley. They illustrate the fashion and a leisurely way of life.

less than 16s. per week. The average wage of the ironworker was 50s. a week, and it was said that these people in the Potteries lived on poultry " especially geese and ducks, the earliest and choicest vegetables—and occasionally even port wine, drunk out of tumblers and basins—beer and spirit in great quantities, excursions in carts, gambling, etc." Such were the words of a Government Inspector, who visited the district. He added that the causes of this devotion to mere animal indulgences was to be found in " the dirt of the streets and lanes, the absence of drainage, lack of water supply, absence of privacy, the ignorance of the wife of household duties and the vacant mind of the 'labourer'." The collier was said to be insubordinate to his master and failed to appear at work on the slightest pretence, largely due to the laxness of the butties—only half of whom could write. Women were employed on the pit-bank, but efforts were made to discourage this. Indeed, the united efforts of a conscientious family of miners in the Potteries could live in comparative luxury and peace, but the majority, in ignorance, spent a large portion of the wages on drink. Even Sunday was desecrated until an Act of August, 1848, prohibiting the sale of beer and spirits before the termination of the morning divine service on Sundays, Christmas Day, Good Friday and public fast or thanksgiving days. This lessened the evil somewhat.

In the mines themselves accidents were frequent through falls of coal and stone and an incredible state existed where men descended the pits at night after which it was not uncommon for the engineman, and every one connected with the surface, to go home and often those injured in an accident during the night had to lie there until the morning. " Their attempts to draw attention by shaking the chain, are often ineffectual, as the pit may be out of the way of any casual passenger."

In the Potteries these pits were literally all over the place and to this day, old pit-shafts suddenly open on waste ground and on several occasions in back yards and in one at the back door of such a house where the occupant was only saved by some sixth-sense as he stepped out to visit his outhouse. The best known example being the fatality which occurred in St. John Street, Hanley, in December, 1903.

In, and around, 1850, these pit-shafts were to be found in " Piccadilly," Hanley, many on the sites of the present Hanley and Burslem Parks, the water of the latter disappearing one day, together with ducks and swans. Fatal accidents were common through pit-shafts, worked and unworked, being left uncovered. Many of them were within a few yards of public footpaths and roads. Families of miners who were injured or lost their lives in the pits were dependent upon the generosity of the pit owner, some of whom allowed 6s. a week to men who met with injuries, until they were able to resume work, and in the case of death, provided part of the funeral expenses and aid for a certain time in supporting the widows and family. To these possible eventualities the miners usually contributed 1s. each for the first week and 3d. each per week for three months during their employment. Similarly, miners also contributed to a sickness fund, the master providing a surgeon and medicine from this fund. Accidents in the mine were frequent and often fatal and the proportion, compared with that of today, is naturally much greater. Some idea of this proportion will be envisaged by the fact that between the years 1855 and 1900 there were over twenty-five collieries involved in fatal accidents, resulting in the deaths of

between five and ninety-one miners in each mine. The most terrible of these was the Talk-o'-the-Hill disaster, on December 13th, 1866, when 91 colliers lost their lives. The Leycett colliery tragedy was on January 21st, 1880, when " shot firing " resulted in the deaths of 62 men. The Mossfield colliery of October 16th, 1889, resulted in 59 deaths and the flooding of the Diglake colliery at Audley at mid-day on Monday, January 14th, 1895, caused the deaths of 77 men and boys. There were many fatal accidents, numbering up to five killed, which did not get prominence in mining records. Such a case was that in which 2 men were crushed to death, in January, 1867, at the Sytch colliery, Burslem, when boulders weighing seven to eight tons fell on the miners who were getting what was known as the Red Shag ironstone. One of the men prayed two or three times, " Oh, Lord, help us," and passed away.

The Diglake disaster was appalling. Here the miners had literally dug a lake of death as the water flowed into the mine rushing down the main shaft, travelling like a fast flowing river, carrying with it a helpless boy. Some two-hundred and forty men and boys were in the pit at the time. At night the scene was eerie. All the gas-jets at Diglake had been extinguished and the colliers' lamps appeared like will o' the wisps. The pump was taking water out of the mine at the rate of 180 gallons a minute and at midnight, on the first day, the level of water had only been reduced by six inches, there still being a depth at the bottom of the pit of 4ft. 6ins. The grief stricken families wandered about the pit head appearing like dark shrouded figures in the brilliant moonlight. They had walked from their homes, some of which were almost cut off by drifts of snow, six to eight feet deep. Men, well-known in the history of mining, worked indefatiguably in the rescue work, one of these being Mr. Joel Settle of the Madely Company who repeatedly went down the mine. The water first made its appearance on the Miles Green side of the mine where there were 100 men and boys. Some of the men actually carried boys as they fought their way through the deepening flood waters. " Some of the boys were crying piteously and especially needed aid." Rescue parties heard eerie knocking in the air pipes from a distance but could not reach the men. Air was forced into the mine by the fan in the fan-house which was in continual operation. The cause of the flooding was said to be due to an error in the 40 to 50-year-old plans of the 80 acres of old workings, which had resulted in a gap being made in the thin wall between the old and new mines when it was thought that they were at least sixty yards from the old water-logged pit. It was recorded that, at midnight on Wednesday 70 men were still in the mine and by Thursday hope of their being alive was abandoned. With the exception of the rescue team the pit was deserted. When the rescue work was at last completed it was found that 77 had lost their lives. Of these sixteen were boys of fifteen years and under—the youngest being thirteen years old. Rescued from the pit was a favourite thirty-year-old, almost blind, pit-horse named King who was found wedged silently standing in deep water, but still alive with its head raised. When discovered on the Wednesday by the men who had worked twenty years in the coal mines and who had led the horse as a boy, King answered to his name with a whinny. The horse had survived five disasters. He was eventually fed and saved. These are the brief details of one of the worst colliery

disasters at the turn of the nineteenth century of which Queen Victoria expressed not only deep sorrow, but her admiration of the gallant rescue workers.

Water in mines has always caused trouble in the district and the earliest records of local mining show that in 1719, Lord Macclesfield cut a gutter which served for sixty years to drain his mines near Burslem. The line of the " slough " was open as late as 1856 and in places was thirty yards deep. The first thirty years of the twentieth century saw great changes in methods of coal mining in the North Staffordshire Coalfield spreading just over 100 square miles, having a total thickness of productive Coal Measures from between 1,200 and 1,500 yards, in which distance there are to be found 32 seams with a total thickness of 130 feet. The coal is mostly of fine quality, especially suitable for use in firing pottery. For every ton of clay used in the making of ware, 9 to 12 tons of " long flame-producing coal " is consumed in the firing. In addition to pottery firing vast quantities are used in other industries, such as the Meaford Power Station which uses about one million tons of coal, much of which is taken from the coal mines of North Staffordshire. It is generally agreed that the deeper the coals the better, as a rule, the quality.

The old method of wooden pit props, " sprags," and beams gave way, in the early nineteen-thirties, to steel arches. The old shallow mines and outcrops of the eighteen-fifties have gone and there is enough coal left—some 2,000 million tons—to be mined for another hundred years if it is required, although it should not be forgotten that about 500 million tons have been taken out of the mines.

Today, everything is done for the safety and welfare of the miners, whereas in the old days they often did not see daylight except at weekends, for they descended the pit in the darkness of early morning, returning only at nightfall. Those of today are infinitely more fortunate and better paid. Coal was got by hand, the miners undercutting the coal to a depth of a few feet. Shot-holes were drilled in the top of the seam and the firing of these was sometimes the cause of many a tragedy, indeed, the cause of nine of the twenty-one disasters already mentioned amongst which was the terrible calamity at Leycett (62 dead). The mechanical cutter now does the undercutting at the coal face and the shot holes above are bored by a compressed air, or an electric drill. The shot, or cartridge, used for blasting the coal apart, is connected by wires to a battery fired from a distance. In addition pneumatic picks break up the coal in place of the heavy hammer and pick.

The providing of pit-head baths meant that the collier could leave the pit, clean and white and not resemble the old time chimney-sweep. Another old custom to go was the " butty system "—a cause of much unrest in the industry. These " butty colliers " hired miners to work for them and carried out a sort of contract or bargain work at the mines, but as mining conditions improved generally, the " butty system " began to lose favour. A butty was not recognized by law. His examinations, or reports, carried no weight with a Government Inspector. He took no responsibility either for " firing shots " or in the work of supervision for safety. His duties were to get the greatest amount of work out of the smallest number of men and to keep down the cost of coal and repairs. (In 1870, house coal was sold at the pits in the Potteries, at 7s. 6d. and 8s. 4d. a ton and slack and engine fuel at 3s. 3d. to 3s. 6d. a ton.) Other workers, such as firemen, had legal responsibilities and often

wanted the repairs done, hence there was frequent friction. The " butty," without legal responsibility, but directing the labour of the men, did interfere with the control of the manager through his under officials and this was said to be the main cause for the downfall of the " butty collier."

In 1896, Mr. Joel Settle, President of the North Staffordshire Mining Institute, denounced the " butty system," but it was some years before the system was done away with.

As pits were worked out or became uneconomical they were closed. One of these was of particular interest because at the moment (1958) the great pit mound at Tinkersclough is rapidly being removed for the Corporation. This long " mountain " of colliery and iron-foundry refuse, has been a landmark in the district for half a century and during the Second World War hollowed-out parts of it were used as air-raid shelters. The mound was caused by the Rowhurst Pit, in Clough Street, Hanley, often known as the Slippery Lane Colliery. Some four-hundred men were employed here by the Shelton, Iron Steel and Coal Company which closed the pit in 1909. This was brought about by the poor state of the market for " steam and manufacturing coal " in the Potteries. Wages at that time were high compared with the price obtained for that class of coal and it was said that the Mining (Eight Hours) Act of 1908, prevented any improvement in the situation, but Lord Granville's Deep Pit at Far Green, Hanley, was—and still is today—doing well. This pit was started about the year 1854. In 1868, 394 men and boys were employed, five hookers-on, two furnacemen and 30 men on the surface. About 400 tons of coal were mined each day. Also there were 22 horses in the pit. The temperature of the air at the pit bottom was 62°F. and the return air was 73°F. The pit was ventilated, as were many pits at that period, by two furnaces set at the pit bottom of each of the 5′ by 9′ clayhole shafts. This caused the up-cast air shaft to become warmer and induced a circulation of air through the workings. The air descended the down-cast shaft at the speed of 60,000 cubic feet per minute. The furnaces were encased in brick work, but there was a danger of explosions in mines where emissions of gas were likely to take place. Today, huge fans provide ventilation.

Another important colliery, the Hem Heath Colliery of the Stafford Coal and Iron Company, was inaugurated by the Duke of Sutherland who turned the first sod of earth at Trentham on Wednesday, July 30th, 1924, with a solid silver spade mounted on an ebony handle. Here, in 1950, was started a new concrete-lined shaft, 24 feet wide, which will carry four cages in the first instance to a depth of 2,100 feet. The output is in the region of 450,000 tons of coal a year.

The deepest shaft in the country exists at the Stafford Colliery in the City of Stoke-on-Trent area. Known as the Sutherland Shaft it has a depth of 3,318 feet and yet coal lies in a number of seams beneath this depth.

The British coal industry was nationalised in 1947 and private ownership of collieries ceased. The West Midlands Division of the National Coal Board controls the North Staffordshire Coalfield which forms one of the Division's four areas with twenty collieries at which between 18,000 and 19,000 men are employed and who mine over six million tons of coal a year. What does the future hold for the miner of the City of Stoke-on-Trent?

Already the shadow of atomic energy is falling across the mining industry and the coal miner, with his high rate of pay, may well be, in this year of 1958, at his peak.

Iron and Steel

If the author has diverted in recording in some detail the mining industry, the reader will realize that as such it forms an integral part of the sociology of the Six Towns and it is fitting therefore to present also some history of the iron and steel industry.

The mining of ironstone has ceased to be a primary industry in the district, but as late as 1920, Holditch Colliery's shafts were sunk for a North Wales iron and steel company and in addition Wolstanton Colliery was sunk for a similar purpose by a Lancashire firm. It has been possible to change over both these pits from what were primarily ironstone to coal mines. Parkhouse Colliery also originated in this way and all three were deepened to obtain coal as their main product.

North Staffordshire and Central Scotland are unique in possessing bands of Black Band Ironstone—found lying between some of the uppermost coal seams—in which sufficient carbonaceous matter exists to permit their being calcined without the use of coal. There are 13 seams of ironstone, totalling 24 feet in thickness, and have been mined for about 250 years.

Mr. Walter Sneyd, of Silverdale, was the first to make pig-iron in the district. It was also made at Apedale by Mr. Heathcote at Latebrook, by Baker & Company at Chesterton on the property owned by Mr. Heathcote and Mr. Kinnersly, and by Mr. Sparrow at Lane End. There were furaces too at Knutton, Etruria, Silverdale, Ravensdale, Clough Hall, in fact all over the district and numerous slag mounds mark the sites. Kinnersly, Heath, Sparrow, Stanier, Granville, Heathcote and Sneyd were all names well known in the industry.

The hot blast system was first adopted in this district at Apedale, in place of the cold blast, and it speeded up the smelting with a great saving in fuel. In 1801-1810, the average price of pig-iron was £6 5s. od. per ton. The price fluctuated considerably and gradually fell until in 1832 it was £3 per ton, only to rise again to prices up to £18 per ton and to fall, in 1850, to £2 a ton.

The first forge mills in North Staffordshire were built in 1838, by Mr. Heath for Mr. Kinnersley, and in 1839 blast furnaces were erected by Lord Granville on the north-east side of the Cobridge Road, known as the Shelton Iron Works and were "blown in" on January 4th, 1841, the story of which is given in the book "History of Etruria." Extensions were carried out on the west side of the Cobridge Road on the Etruria Hall estate. The blast furnaces were begun in 1850, on the banks of the canal, and were "opened" by Lord Granville in 1852. In 1864, further works were added consisting of puddling furnaces and rolling mills. The whole was known as the Shelton Bar-Iron Works, later to become known, in 1886, as the Shelton Iron and Steel Company, with Lord Granville as the first chairman. The new company built open hearth steel furnaces and improved the mills so that they were capable of rolling large steel sections. The company possessed its own ironstone mines, coal mines and limestone and dolomite quarries. Some years later

(1905-6) came the first coke ovens with their by-product plants. It was found that one ton of coke would do the work of 36 cwts. of coal. By 1861 there were 34 furnaces in the district, of which 24 were in blast in November of that year. By 1878 the number had increased to 42.

On March 28th, 1891, the first general meeting took place at Winchester House, Old Broad Street, London, of the Shelton Iron, Steel & Coal Company Limited, from which title it will be seen that the name had recently been changed and coal added to it. It was reported that Lord Granville was " still confined to his room by serious illness." The secretary also said that the amalgamation of the Shelton Colliery and the Blast Furnaces with the Shelton Iron & Steel Company's Works was proving successful.

Lord Granville did not again visit the works at Etruria and passed away on March 31st, 1891, in his seventy-sixth year. He was buried in the family vault at Stone Parish Church. Lord Granville was the largest employer of labour in Hanley. The steel works and collieries he owned resulted in his paying one-third of Hanley's rate income and his weekly wage bill was no less than £5,000 at that time. On the death of his father, in 1846, he had come into the possession of the Shelton Collieries—all in the Borough of Hanley. They were the Deep Pit, the Slippery Lane Pit and the Racecourse Pit. Today this last-named colliery is marked by the Racecourse Pit tip at the rear of Etruria Hall. Removal of the tip was begun in 1959. During World War II an observer's post was placed on the summit. In addition the blast furnaces passed to him. Lord Granville was deeply interested in education and founded the schools known as the Granville School at Cobridge. He opened the Hanley Free Library in Pall Mall, Hanley, on April 26th, 1887, and was also patron of the Staffordshire Economic Benefit Building Society. The Shelton Company was acquired by John Summers Limited of Shotton, near Chester, in 1919. Until coal was nationalised, the Shelton Company had four collieries—Hanley Deep Pit, Florence Colliery (Longton), Holditch Colliery (Chesterton) and one at Silverdale. It might be said that the death of Lord Granville marked also the passing of Etruria as a beauty spot, for, from about 1880 to the present day, the village has given up the unequal struggle against the late Earl's iron works and coal mines. Old records provide much proof of its one-time rusticity, and in 1864 and later we find 250 boys employed at the Shelton Bar Ironworks and Earl Granville's Collieries, assembled in the grounds surrounding Etruria Hall, the residence of Colonel W. S. Roden, who was connected with the management. Sports, games and dancing in the evening for parents and visitors to the band of the Etruria Artillery Company, on the lawns, were all part of the entertainment, accompanied by substantial refreshments. The festivities were spread over most of the day. The later picture of smoke, intense grit and fumes, has today been lightened somewhat by the making of the desolate and barren " Hall Fields " into a 37 acre sports field between 1951 and 1953, by the company. It has done something to brighten the face of Etruria.

There were of course strikes in the local iron trade, as in the older industry of pottery making and the strike, in the early months of 1865, occasioned by a reduction of wages due to the general falling off of the iron trade and resultant drop in

prices obtained for the iron, was typical. The Shelton Works, the 22 puddling furnaces and four mills at work at Kidsgrove, forges at Ford Green, Silverdale and indeed most forges throughout the district, were affected. Many of the men wished to return, against the advice of their union, for they only received 10s. a week whilst out of employment. " Bread-lines " were an urgent part of the daily life of the six towns, for a strike in any one of the three main industries effected the other two and a host of smaller ones, in addition to the shops in the towns. " We had," said one worker, " to join the multitude with jug and can to get the charity soup—and the pawnshops ate up household goods." This same man said. " I am certain that men like Charles Butters of Hanley (Pawnbrokers) were as much philanthropists as business men in their dealings with the distressed people about them—for they could never hope to have a tithe of the pledges redeemed."

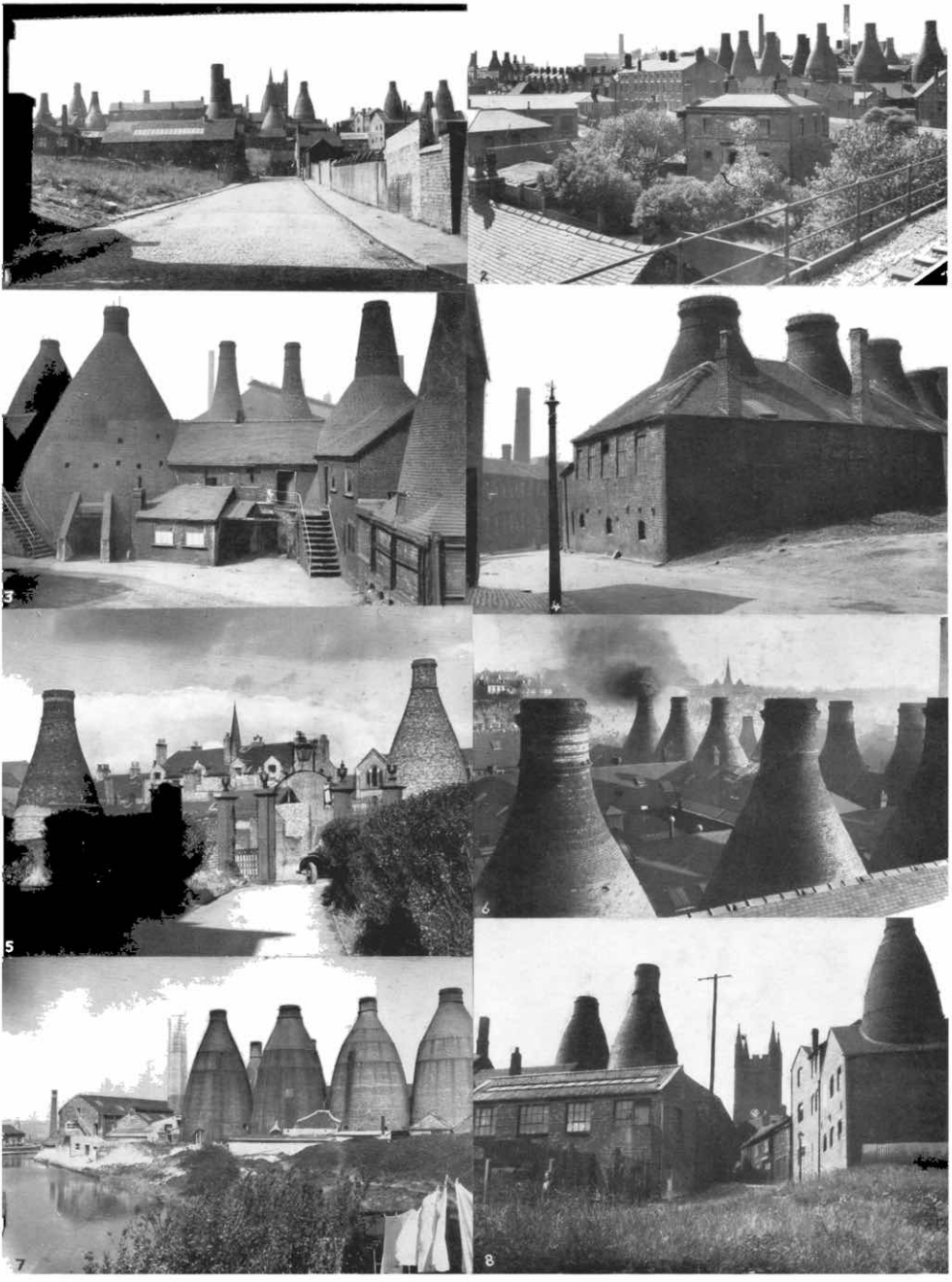
Distress was particularly acute in the building trade in the Potteries in March, 1886. In Longton, colliers, furnace hands and pottery workers had six months earlier listened to the words of the Mayor, at a meeting in the Court House, in which the Poor Law was expounded for them. They were shown that the Board of Guardians had no power to administer out-door relief wholesale to able-bodied men and that their only relief lay in an appeal to the public for funds, which resulted in soup-kitchens which provided ¼ pint of soup, ¼ lb. of bread for each child per day and double this for an adult, at a public cost of 3d. and 6d. per week. No family was to have this relief when the family earnings amounted to two shillings per head per week, and for every two shillings of family earnings or parish relief, one member of the family was excluded from this soup kitchen relief! In Hanley, during January, 1895, it was proposed to open a Labour Yard Bureau and Soup Kitchen. " Here, distress was real and great." Mr. Alexander (a tailor) of Piccadilly had given 1,000 loaves of bread and the labour yard was opened in Trinity Street. At this time (January, 1895) it was said that scarcely a man could go to the forge and draw a sovereign, or even half a sovereign, for the work each had done and that children were starving and families being turned out of their homes because they could not pay the rent. This was doubtless true, for during the years 1892-4 men had not been doing more than two days a week at the ironworks in the district and some men had not worked more than one week in ten. Families with eight or ten children had to be kept on an average wage of ten shillings a week! The Labour Yard found work for a few men who had large families at a rate of pay from two shillings to two shillings and six pence a day. The work consisted mainly of cutting up wood given by " gentlemen " in the district. In addition the Yard had purchased, as a start, 7 tons of railway sleepers from the North Staffordshire Railway Company. The wood, in bundles, was then sold by the men from door to door. At the soup kitchen the men could, for one penny, obtain one pint of good pea-soup made from beef, peas and vegetables and 8 to 12 ozs. of bread. In addition 300 tickets were distributed daily at the Hanley schools in order that needy children could obtain breakfast.

There were many relief funds organized in the Potteries. Possibly the best known of these was the Hanley Christmas Dinner Fund, popularly known as the Hanley Hot-Pot Fund, established during the distress of the year 1895. These

dinners could be taken or collected by poor families who had little more than a bare table and a few chairs in their living rooms. The dinners, which were collected from various bake-houses, consisted of a " hot-pot " of about 10 lbs. together with a 4 lb. loaf and ¼ lb. of tea. More than 2,500 " hot-pots " were distributed each Christmas Day. Today their place is taken by Old Age Pensioners' parties and annual treats given by the various wards of the Labour Party in the City, in addition to many charities. In 1909, Old Age Pensions came into operation and brought at least some permanent relief to old people. On Tuesday, February 1st, 1910, the British system of Labour Exchanges was inaugurated. The Stoke Exchange did duty for all the six towns of the Potteries and Mr. Noah Parkes and his assistants were kept extremely busy.

The General Strike of 1926 closed all industries in the district and even the Sentinel was forced to cease publication for five days when 19,000 pottery operatives were thrown out of work. Even when the strike was called off, on May 12th, 1926, the coal stoppage continued for several months with severe repercussions on the pottery industry. There was nation-wide unemployment during the 1930's, in which the " dole " and means test became part of the national life. It was during this period in 1931 that the three Pottery Divisions elected National Conservative candidates—Mr. Harold K. Hales for Hanley, Mrs. Ronald Copeland for Stoke and Mr. William Allin (Liberal) for Burslem, but in the 1935 election Labour Candidates were returned for the City and have remained ever since.

The trading life of the six towns at one time was a life of long hours and hard work, for much of the shopping by the workpeople was done after working hours which often went on until eight, nine or even ten o'clock at night. True, many of the shop assistants " lived in " above the shop itself, especially at the " big houses " such as those of Michael Huntbach, Hanley, and Allin and Williams, Longton. It was common to find an official notice which stated that the store must open promptly at 6 a.m. and close at 9 p.m., or later. That the store must be thoroughly cleaned, lamps trimmed and filled with oil. The moral care of these shop assistants was looked after—at least on paper—and such notices usually stated also that: After 14 hours' work, spare time should be devoted to reading good literature. That each person must pay not less than one guinea a year to the church and the young to attend Sunday school every Sunday. That: " Men are given one evening a week for courting purposes and two if they go to prayer meetings regularly." (This was especially encouraged at Huntbachs who insisted on attendance at Bethesda Church). It was also stated that " Any employee who is in the habit of getting shaved at a barber's shop, smoking Spanish cigars or attending dances will give his employer reason to be suspicious of his integrity and all-round honesty." One can only wonder what the objection to the barber's shop was for their only offence seemed to be that they employed " lather boys," usually active little sprigs, whose duty was to produce a lather on the face of the customer to soften the coarse bristles preparity to shaving by the barber. Unfortunately for them the Employment of Children Act of 1903 upset considerably the barbers who " consider it a distinct hardship on our trade." A bye-law of this Act prevented young children doing this work and brought a strong protest from local hairdressers at a meeting held at



For information see overleaf

1. This and others are a series of photographs, all taken between 1950 and 1956, illustrating the predominance of the bottle kiln still to be found in considerable numbers in the City of Stoke-on-Trent. The absence of smoke is significant. This scene is at Paragon Road, Longton.

2. Tunstall, photographed from a loop-line train. Below is Pinnox Street. Note the fine old house, once the home of colliery managers and now used as a store.

3. Original (1769) bottle ovens at the Wedgwood Works, Etruria, photographed in 1956.

4. Bottle ovens forming part of "pot bank" at Longton.

5. A study from St. John's Churchyard, Burslem in 1951. Now (1959) the ovens are gone and work on the demolition of Sneyd Church began late in March 1959.

6. "Sentinels of the Potteries." A scene from a roof at Twyford's, Cliff Vale. Beyond is Hanley Cemetery and also Shelton Hall which was demolished in March, 1959.

7. Ovens near the canal bridge at Bedford Street, Shelton. Demolition of these ovens and much of the old Bedford Works of Messrs. Ridgway was started in April, 1959.

8. Local churches were often surrounded by potters' ovens as shown by this view of St. James' Church taken from Barlow Street, Longton.

the Marquis of Granby Hotel, Hanley, in August, 1911.

At the leading draper's shop of Michael Huntbach, in Lamb Street, Hanley, most of the top floor was occupied by living accommodation and a dining hall. Michael Huntbach insisted on the correctness of his assistants, who wore pin-striped trousers and black jackets. Mr. Huntbach was treasurer of the Bethesda Town Mission and was equally insistent that they attended Bethesda Church, in his company, each Sunday and the procession in Lamb Street on that day was impressive. Even as late as 1912, some twenty to thirty assistants were still "living in," but soon after the death of Michael Huntbach the system was discontinued, as it was in many of the big shops. Arnold Bennett, the Potteries novelist immortalizes the firm of Huntbach in one of his short stories.

In 1843, the Early Closing Association had been started with its headquarters in London—an organization that had survived all others. It is then not surprising that even in 1851, meetings were being called to discuss the question of early closing of the shops. At a meeting held in the Town Hall, Burslem, in June, 1851, it was suggested that the Board of Health be asked to close the covered market at nine, instead of ten o'clock on Saturday evening and also the shops. After discussion, it was decided that such a move was "not at present practicable." It was not however until between 1891 and 1896 that the work of the Early Closing Association was able to make itself felt to any degree when this National Union prepared a "Shop Assistants' Hours Regulation Bill," which proposed to give Town and County Councils the power to select and enforce an early closing day, and also to fix the hour of closing each night in the week and that no shop workers should do more than 52 hours in any one week with one-hour for dinner and half-an-hour for tea. A branch of the union was formed in February, 1896, when the union estimated that at least 240 shop assistants in the Potteries were in need of such a branch. The North Staffordshire Traders' Association naturally enough wanted their say in the matter of early closing, but were not averse to the scheme if all would adhere to it. A sectional meeting of the hosiers and drapers recommended that nine o'clock on Mondays and Fridays, eight o'clock on Tuesdays and Wednesdays and one o'clock on Thursdays be adopted and that the time of closing on Saturday be left to the discretion of each individual member. This was tried out and worked for a time after which it was by no means observed, and in 1898 many shops kept open to much later hours. At a meeting early in 1899, on the proposition of Mr. Teeton, it was decided that the recommended hours should be enforced until July 31st, 1899, as a further trial. In Longton, during the summer of that year, sixty Longton shop assistants commemorated the inauguration of the early closing movement by a visit to Rudyard in six brakes (horse carriage capable of carrying a number of people). Also Longton traders (July, 1899) decided to close the principal shops at one o'clock on Thursday afternoons, being one hour earlier than had been usual. Thus encouraged by this gesture of the employers the assistants who had held their Rudyard outing on the first Thursday on which the one o'clock closing came into force, joined in a meeting at the Heathcote Arms Hotel, on Monday, July 17th, 1899, at which a number of traders, managers and shop assistants attended in a most friendly spirit with a view to forming an

association which would eventually join the National Shop Assistants' Union. The only recorded dissension at the meeting seems to have been occasioned by a remark by a speaker who said that Longton assistants were not working under such conditions as many of their brethren in some places were, which brought the reply from an assistant that at a certain place of business in Longton employees were having their Saturday night supper at 12.45 a.m. on the Sunday morning. However, improvements continued to be made. The Shop Hours Act did not deal with the closing of shops at night and contained no reference to Sunday closing, which was only dealt with by the Lord's Day Observance Act, but seldom put into operation in the early part of the twentieth century. Thus, much interpretation was left to the traders themselves and the Town Councils and so in May, 1912, the North Staffordshire Traders' Association made application to the Stoke-on-Trent Council to fix a general early closing day and time. The day suggested was Thursday and the time 1 p.m. A proposal was also to be made to the Home Secretary to fix the hours of closing of shops in the Potteries; Mondays, 8 p.m. instead of 8.30 p.m.; Tuesdays and Wednesday, 8 p.m.; Thursdays, 1 p.m.; Fridays, 8.30 p.m. instead of times varying from 8 to 9 p.m.; Saturdays, 10.30 p.m. instead of varying times from 10 p.m. to 11 p.m.

As the twentieth century progressed, conditions gradually improved, until we have the comparatively ideal conditions found in the shops today, and these may well have reached a peak which may not be bettered for a considerable number of years —especially from a financial point of view. As regards the health of the shop workers, under the Shop Act, 1950, this is carefully guarded by the City Public Health Department. Inspectors see to it that there are very few infringements in this direction. In 1955 281 inspections of shops were carried out and 100 re-inspections, and 133 contraventions of the Act were found in shops in the district. These were put right.

CHAPTER 8.

Education

Endowment of education in the Newcastle-Stoke area began in 1602 when Richard Clayton gave £10 to the Newcastle Borough School. There were later several endowments including those of the Rev. Edward Orme which were (i) £40 to the Grammar School and (ii) money to establish a separate English School. In 1850 the English School went into a new building on the Higherland. In 1872 on the amalgamation of the educational charities of the town the £30,000 available was used to establish two additional schools. The three main schools were (i) the High School, (ii) the Middle School (which was Orme's English School on the Higherland) and (iii) the Orme Girls' School. The old Grammar School was eventually closed about 1885. The Middle School later prospered and regained its "Secondary" status in 1907. Later it reverted to its old name—Orme Boys' School, but its rapid growth led to its removal to new buildings in 1928 as the Wolstanton Grammar School under the control of the Staffordshire County Council. Today it is once more under the control of Newcastle.

So far as Stoke-on-Trent is concerned, in 1604, John Weston, Rector of Stoke, kept a school for about forty boys and thirty girls. The bulk of the population was not considered to require any education! One of the earliest schools in the district was the Newchapel Free Grammar School, founded as the result of the generosity of Dr. Robert Hulme, M.D., of Sandbach, who died in October, 1709. In his will, dated August 5th, 1708, he left an endowment which appeared to be worth about £70 a year "for the teaching and instructing of so many poor boys in Newchappell." These were to be chosen by the inhabitants and were not to exceed eighteen in number at any one period. In 1714, it was decided by the Privy Council, that Newchapel, with only three houses, included the hamlets of Tunstall, Chell, Oldcott, Thursfield, Wedgwood, Brieryhurst, Stadsmerslow and Ranscliff. The doctor had appointed William Bourne and seven others as trustees of the bequest. After their deaths the trust devolved on Admiral Smith Child and on his death, in January, 1813, passed to his widow, Margaret Child, to his son and to William Clowes. In January, 1859, seven new trustees were appointed and the clerk to the trust was Mr. T. Forshaw of Newcastle. In 1845, the trustees fixed the number of boys for each township as follows: Thursfield, 4; Tunstall, 3; Oldcott, 3; Brieryhurst, 3; Chell, 2; Ranscliff, 1; Wedgwood, 1; and Stadsmerslow, 1. The schoolmaster was to receive the residue of the clear rents and profits of the premises, then of the value of £130, for his services as teacher but refused to recognise the arrangement for there were grave doubts of its legality. By 1860, the sum paid to the Reverend J. Forshaw, minister of Newchapel, was thirty shillings. In addition £70 10s. 7d. was the total amount paid over half-yearly to the Reverend J. Sutcliffe, the schoolmaster of Newchapel, who also received an additional thirty shillings per year, the gift of Mr. Joseph Bourne, for teaching two children additional

to the eighteen free scholars. The Reverend Sutcliffe was still teaching at the grammar school in the year 1871, but on May 5th, of the same year, a meeting was held by the trustees of the Hulme Charity at which they met Mr. Stanton, Deputy Commissioner, appointed by the Endowed Schools Commission, who made it clear that the building was unfit for use as a school. The trustees decided to ask the Commissioners to choose a site for a new school within the township of Chell, for already the Education Act of 1870, was making itself felt, and it was found that the endowment was really being wasted at Newchapel. A scheme was put forward by the Charity Commissioners entirely on their own responsibility. Copies of the scheme, before presentation to Parliament, were deposited at Tunstall and Kidsgrove. It was advertised in newspapers and copies were available at six-pence each. The new scheme was passed by Parliament. The old Newchapel Grammar School was finally closed, and, in 1877, the new school was opened at Tunstall. It was built to accommodate eighty boys, but up to 1883, the average yearly attendance did not appear to exceed forty-five pupils. After this there was a further decline and by 1887, only twenty pupils were attending. The scheme of the Commissioners, unwanted by the people, had been "a failure from beginning to end." The school was constantly in debt and by 1887, the debt was equal to the yearly income! The governors had no option but to close the school and agreed to ask the Charity Commissioners to allow the endowment to be given towards the Art and Science School which it was proposed to erect in Tunstall mainly by private subscription. The original scheme was suggested by Mr. J. Nash Peake, in connection with the jubilee buildings.

At Mere Lane, Longton, a school was founded by the will of Thomas Allen, Dean of Chester, in 1731, which directed that £100 be invested in the purchase of land, the rents of which were to be applied in half to a schoolmaster and the other to buying New Testaments for the poor of the parish. By 1825 it had fallen into disuse and decay. Another early school in the district was the Burslem Free School, founded in 1749 by subscriptions amounting to £515. Of this money £60 was spent on purchasing a school house. A further £250 was spent on acquiring 27 acres of tithe free land, with farm, at Ipstones Edge as an investment for the school. A rental up to £22, in 1834, was obtained. This sum in addition to the use of the school house paid the fees of the schoolmaster who taught, at this date, 1834, 24 boys and 6 girls. The original school stood near the Market Place on the Liverpool Road at Burslem and was sold in 1832 by the trustees and a new building erected in Moorland Road. An early Free School, of obscure origin, was said to have been built in Hanley, by Messrs. Adams and Taylor, of the Old Hall. Here a yearly sum of £6 was paid, by the Adams family of Newcastle until about 1807, to the resident master for teaching 10 free pupils. Records of the land in Hanley from which the endowment came were lost and when, in 1825, the Charity Commissioners interviewed Peter Tock, the schoolmaster, then in his 86th year, he was able to tell them little other than the fact that he had not conducted a school there for a number of years. Thus the land from which the school drew its £6 yearly income and which had apparently been sold by Mr. Joseph Adams about the year 1816, was lost in the passing of time and the school, along with the aged

Peter Tock, died a natural death.

In March, 1760, John Bourne, philanthropist, founder of the original Chapel of Hanley and Town Clerk of Newcastle-under-Lyme, built and endowed a small school and house at Longton. The endowment of £7 a year was to provide teaching for " 25 of the poorest children thereabouts."

The next school of note to be erected was the Cobridge Free School, built by subscription in 1766 as a grammar school. The site of this school is today marked by a lamp standard, bearing a commemorative plaque, situated in the centre of the road at the junction of Sneyd Street, Elder Road and Leek New Road, Cobridge. (A modern lamp post replaced this old lamp and standard in 1958 and only the inscribed plinth remains.) It comprised two dwelling houses on the bottom storey, and the school, capable of accommodating 120 scholars, occupied the full length of the upper storey. The school, which became somewhat dilapidated, was repaired in 1821, at a cost of £30. Here a useful school was conducted for many years and pupils paid from 2d. to 6d. a week for their education. The school received no endowment other than the original subscriptions and the master received his salary from the small sums provided by the fees of the pupils. By about the year 1850 it had ceased to be used as a school and housed two families. In 1858, we find that the Highways Committee recommended that the old school should be let to a suitable tenant, only one portion of which was at that time occupied. By September, 1860, the Charity Commissioner reported that the Reverend W. D. Lamb of Cobridge, had informed them that all the trustees of the Cobridge school were dead (the last trustees to survive were Jacob Warburton and William Adams) and that the Board of Health had taken possession of the property. The Commissioner therefore wished to know on what grounds the Board had taken over the property and for what purpose the building was used. The Clerk to the Board replied that he found a person, of the name of Eardley, in possession of the building, who paid no rent. The Board had then, because of a memorial addressed to them, taken possession of the building as the properly constituted local authority, and had let it, first to the Cobridge Young Men's Reading Association, and then to Mr. Goodfellow, schoolmaster. The school, he said, was no longer a charity school and did not come under the jurisdiction of the Commissioners.

The building was put to many uses and between 1860 and 1896, the old school —by then in a state of decay—had been occupied by cobblers, barbers and fishmongers, at a nominal rent paid to the apparent owners. Efforts were made to preserve the old school building, which was complete with a bell cupola and bell, but after purchase by the Burslem Town Council for £150 (which included the land) it was demolished in 1897. This sum of money, together with £184 which was in the Manchester and Liverpool District Bank, was administered in another form. The Charity Commissioners amalgamated the endowments of the Cobridge Old School, the Burslem Endowed School and the Jane Maddock Endowment, and the scheme was called the Burslem Exhibition Endowment. The trust was governed by three members appointed by the Burslem Town Council, three members by the School Board and one by the County Council. The income from the fund was used to maintain " exhibitions," each of a yearly value of not less than £2 and not more

than £5, tenable at any institution of education, higher than elementary or technical instruction, approved by the governors. In the award of one-half in value of the exhibitions, preference was to be given to children, who were and had for not less than three years been scholars at any of the public elementary schools in the Borough of Burslem.

From about the year 1790, the Sunday Schools connected with the Church of England, the Catholic Church and the Methodist Chapels in the district were almost the sole providers of education and later about the year 1822, the British and National Schools, based on the principles of the Church of England, were erected in some of the six towns. They did good work and were financed by subscriptions. So there was erected in the Mother Town of Burslem a National School by St. John's Church in 1817. The cost, including the ground, was under £2,000! It was built to house six hundred children. A small weekly fee was paid for admission by the parent. St. Paul's, Burslem, also had its National School, built in the Gothic style. At Stoke, in 1815, the first St. Peter's National School (the second was built in 1905) was erected on ground at the south-east corner of the parish churchyard, but it was not until 1830 that it received its first endowment, a legacy from the rector. Nevertheless this was of considerable assistance as it was not until 1833 that grants were made by the state to assist education, and, just one hundred years back from the time of writing these notes (1958) St. Peter's School was receiving £40 from the Government to assist its work. At that time (1858) some five hundred children were receiving at least some form of reasonably regular education at school.

Another important Church of England School, in Stoke, is that at Boothen, built in 1870. Unfortunately it was found, in 1954 and 1955, to be in an increasingly unsafe condition. Deep cracks were found in several of the walls and in the class-rooms some of the old timbered roofs had to be shored up. The stone work of the school hall, which was high roofed and with rounded ends in the ecclesiastical style, was found to be crumbling, so in November, 1956, demolition of the building began. This building had stood for over eighty years and during the early part of its history had also served as a church.

It will not be out of place whilst writing on church schools to mention that the Butler Education Act of 1944 required every local education authority to produce a Development Plan to make provisions for new schools and to replace old ones. This required close co-operation between the City Education Committee and the Church School Managers and by the stipulations of the Act it was necessary for the Church to meet at least half of the sums needed for modernising and rebuilding if they were to retain their aided status.

A school had been built in Longton, by John Bourne, as early as 1763 on land given by the Reverend Obadiah Lane, complete with a house for the master. Mr. Bourne endowed this school with property which, in 1832, consisted of the Golden Lion Inn, Longton, let for £56 a year and two other dwellings at £10, making a total of £66 a year, exclusive of the schoolmaster's house which was valued at £15 per annum. By 1824 the school was found to be too small for the number of children seeking admittance and the trustees were also saddled with an ageing

schoolmaster and offered him a pension of £15 per year. The remainder of the income they applied to the Longton St. John's National School, which had been built by subscription, in 1822, on land given by the Stafford family, but which in 1824 was still not in use owing to financial difficulties. By 1840, the National School was educating 100 boys, 50 girls and 100 infants who were daily pupils.

Also for the poor were the " Dames " schools kept by ladies in their own houses and who were able to impart to their little pupils, knowledge, in a greater or lesser degree, for a sum of about 2d. a week. Such schools, which abounded in the mid-nineteenth century, usually occupied but one room of the house. Very often the house was only a cottage like that at Dale Hall, Burslem, in 1850. Here the teacher was " a fat, grisly, middle-aged man, by no means pleasant to look upon, who had lost by accident half a leg," declares William Scarratt, from actual experience, in his book " Old Times in the Potteries." Here punishment was " by an eight-foot long crate rod . . . and my last vision of the 'don' was his being brought up home from the Staff of Life Inn with the assistance of two other 'bureurs'." A report of the Commissioners on the employment of children, in 1843, showed that there was a reasonable number of schools in the Potteries, but owing to the employment of children they were not fully used, and 759 of the children could neither read nor write. There were in fact 17 day schools in the district at this period.

For the children of the pottery manufacturers there were a number of schools run by well educated ladies and gentlemen. One of the earliest of these was the " Seminary for Young Ladies and Gentlemen, in two Departments, separately conducted by Mr. and Mrs. Magnus, with four resident Assistants at Etruria Hall," in 1824. The Hall, at this period, was not occupied by Josiah Wedgwood II. In this magnificent setting the " young ladies and gentlemen " could obtain their education and be as " liberally treated as might be expected were the charge that is made, twice its actual amount " reads the prospectus in my possession. Some of the terms are well worth recording: Board and Tuition, Twenty Guineas per annum for pupils under fourteen years of age and Twenty-four Guineas for pupils over fourteen. No extra charge for Entrance! In addition—Music, Drawing and Dancing could be added " upon the terms of the respective Masters." Here, at the original home of the great classical potter, Johiah Wedgwood, the classics were taught—Latin and Greek together with Hebrew, French, English and other European languages, in addition to the usual lessons which included book-keeping, natural philosophy, mathematics, history and elocution. Young ladies could secure a first-class education for " the plan at Etruria Hall is to separate the useful from the superfluous in substitution of the trifling pursuits—in many Female Seminaries." Also reads the prospectus, " Etruria Hall is delightfully situated on a rising ground in the centre of a pleasant park about a mile from Newcastle, through which coaches pass daily." That the school flourished for a number of years cannot be doubted, but the date of its closure is unknown to me. By 1842 it was occupied by Mr. and Mrs. Francis Wedgwood, and about the year 1856 it became the home of Mr. W. S. Roden, who joined the nearby ironworks as a working partner and later became Mayor of Hanley. A patron of education we find Mr. and Mrs. Roden entertaining in the grounds of the Hall in August, 1863, some 250 children, from

Earl Granville's Schools at Cobridge. The band of the First Staffordshire Artillery Volunteers, of which Mr. Roden was Captain-Commandant, headed the procession of children from the schools to the Hall. "Plum cakes and buns, and games, were the order of the day."

Another school similar to that at Etruria was held in Bank House, Shelton, in 1826, under a Mrs. Hollinshead. Here the charge for day boarders was eight guineas and for boarders twenty guineas per annum. This very large house, in extensive grounds, occupied the site on which the present Hanley Town and Victoria Hall was built. At the same date Tontine House Academy was also open for "the education of young ladies and gentlemen." Re-opening of the Etruria Hall School after the midsummer vacation was on a Monday, usually near July 19th, and at the Hanley Academy a Monday near June 29th. At Handford Villa the Misses Heath primly announced that they would "embrace this opportunity of informing their friends, that their school—for a limited number of young ladies—would re-open on the 18th of July, 1826 . . . be happy to receive their pupils and respectfully solicit a continuance of that support and encouragement that they had hitherto met with."

Today we lament the ever rising cost of living. This is not unique, for in January, 1856, Mr. Charles M. Osmond of the Shelton Hall School is demanding £40 per annum for pupils under 12 years and £50 for the over twelves for boarders at his school. The school at Shelton Hall, which had been opened prior to 1852, by Mr. Andrew Archer, was one of the best known establishments, situated at that period, 1856, in beautifully wooded open land. (Much of this land later became a cemetery.) The fields of the park rose above the narrow hollow lane, now the main road between Hanley and Stoke. Blackberry bushes climbed the four to six feet steep sides of this lane and all around were trees of great girth, many stretching their boughs over the road. Smaller trees were in profusion as far as Shelton Church. The school was later removed to Shelton House, situated behind Victoria Square. When that building was required, as part of the side of a factory, Mr. Osmond removed to Richmond Terrace, where he carried on the school until he disposed of it to Mr. A. T. Daniel, M.A., who continued it for at least another twelve years, until about 1899. Mr. Osmond died in his eightieth year, in November, 1911. At the time of his death Shelton Hall was occupied by Mr. and Mrs. Charles Daniel.

Shelton Hall was pulled down in March, 1959, a passing brought about by dry-rot, wet-rot and woodworm. The roof, in a dangerous state, had partially collapsed. The battered remains disclosed that the house had been of a plain but solid structure. Almost devoid of plasterwork or panelling its scarred cream and green painted walls were unostentatious in the extreme. The Hall and the stables, with its picturesque stalls surmounted by miniature horses' heads cast in iron, were all bulldozed ruthlessly away. It was the end of an era in the once pleasant Cemetery Road, Shelton, in which gusts of cold March winds swept the dust of demolition into the cemetery across the road. The Hall had survived only a few years after the death in August, 1956, of Mrs. Rebecca Moxon, J.P., its last owner who had resided there since 1916.

Another well remembered school was Mr. C. Alfieri's, Northwood Classical and

Commercial School, still standing at the end of Birch Street, Northwood. In the 1860's this school was well known for the education that was provided. Fees for boarders varied from twenty-five to thirty guineas, according to age. Day pupils, of the age of 12 and over, were admitted at one and a half guineas a quarter; under 12, at one guinea, and day boarders three and a half guineas a quarter. Mr. Alfieri was a member of the management committee of the Potteries Mechanics Institute which had been established in Pall Mall, Hanley, in 1861. Northwood, in 1840, was one of the most select residential areas of the district and in addition to Mr. Alfieri's school there was the Ladies' School, at Northwood, conducted by Mrs. W. Allbut and Miss Mort. At this school, day boarders were taken at sixteen guineas per annum.

There was also a Ladies' School at Bleak Hill, between Cobridge and Burslem; the Nunnery House School in Bagnall Street, Shelton, kept by Miss Baddeley in 1850; the Vauxhall Academy at Longton; the Ivy House School, at the foot of Northwood, Hanley. This last named school claimed to be a grammar school, with E. Y. Haslam, Ph.D., as principal.

The grammar schools and some of the superior private schools, such as Alfieri's Academy or Classical School, held a public oral examination in the old Town Hall, Hanley, to which the pupils were admitted. This was done to demonstrate the ability of these schools to give first-class teaching.

These private schools, most of which came into being in the first half of the nineteenth century, catered for one particular section of the public and provided a very superior and varied education, superior indeed to that provided by some of the private schools which were later to spring up in England following the Education Act of 1944, which abolished fees in most of the Grammar Schools, admittance being by examination and interview. The result of this was that many private schools were started by people without qualifications or suitable premises. In the Potteries area the few private schools of today are of a good standard even though some of the buildings are not very satisfactory as schools. The cost of education in such schools is generally higher than the average for the state schools. The average fee of one such good school in the district is about £30 per term.

In 1944, an important Act was passed which stipulated that all private schools must register with the Ministry of Education and be prepared to be inspected by Her Majesty's Inspector of Schools. Due to the war this did not come into effect until April 1st, 1958.

It was however the National Schools which provided the educational requirements of the children of the poorer people of the six towns. In addition to the schools previously mentioned, a National School was erected in Shelton, in 1835, at a cost of £1,000. The one-storey building had two rooms which could be used as one and was capable of accommodating about 400 day pupils, and 600 Sunday school pupils. At Longton, in 1836, another school was erected, near to the church of St. James', on ground given by the Duke of Sutherland. Conducted on the National System, this school accommodated one hundred day children and two hundred on Sundays. Soon after the erection of the school a school house was added. The National School at Stoke had a total of 445 boys and girls. At Harts-

hill, Herbert Minton, pottery manufacturer and philanthropist, maintained a school, in 1842, for 170 children and also one at Stoke for 100 children. At Tunstall, a school, connected with the parish church, educated 500 children on Sundays and during the evenings. At Fenton, at the same time (1840) could be found a school erected by the Bourne and Baxter families, at an approximate cost of £500 where about 120 boys and girls attended during the week and about 400 on Sundays.

The Sunday Schools did a vast amount of good work in the educational system of the day—a work which continues to this day in its religious teachings. In this direction the Methodists were probably more numerous for there were, as now, several chapels in each town. The first Sunday School was established in 1787 in Burslem by the Methodists. Here, writing, reading and arithmetic were taught and emphasis was put on Bible study. An annual event in the life of the church, especially the Methodist Church, was Charity Sunday. These events were necessary, for the collections were all-important for the welfare of the church school. From the children's point of view, it was a day to which they looked as " the maddest, merriest day of all the year." It meant new clothes, obtained by parents after weeks of saving and personal sacrifice. The girls dressed in white, with sashes round their waists and ribbons in their hair, the boys neat and clean. " Parents had golden moments of memory when they, too, were Sunday scholars—even fathers who had given way to drunkenness would keep themselves sober for weeks before Charity Sunday." Some idea of the financial good, quite apart from the moral aspect, may be gained from the fact that on a Charity Sunday, about the year 1852, the Primitive Methodist Sunday School procession and celebrations in the town of Tunstall, raised between £170 and £180, a large sum in those days, " whilst the government of the period was not contributing as many shillings to educate all the children in the town." It was said in truth that " Sunday Schools are England's glory." At the services in the chapel, " even Handel and Mozart would have been surprised to hear those pale-faced potters, male and female, give such sweet varied expression to their choruses."

Not all Sunday School teachers were perfect. Although Godly men in their own eyes they were sometimes a little inhuman. Thus in Hanley one of the early superintendents who taught in connection with the first Wesleyan Methodist Chapel (built in 1784 (demolished 1819) in the Abbey Fields, later renamed Chapel Fields) was noted for his harsh treatment of unruly pupils. He would beat a boy severely for disobedience after which he would lock him in school for hours without food, or a pupil would be punished by being made to hold a heavy weight, such as a brick, at arm's length above his head, and " if from pain, or faintness, he in the least gave way under his torture, he was kept up to the task by means of stripes across his shoulders with a heavy cane." On one occasion the offender dropped the weight on the superintendent's toes, " thus keeping him away from Sunday school for many Sundays." This form of punishment was not unusual and was used in some Potteries schools until about 1880.

In 1818 the British School was founded. It stood on the site now occupied by the Hanley Library, in Pall Mall. The British School was run on Dr. Bell's Lancastrian or Infant System, as were the majority of day schools in the district,

most of which belonged to the National Society. These National Schools permitted only children of the churches of the six towns to attend, and not those of nonconformist members of the population.

One of the best known of the National Schools was the St. John's School, in Hanley, and its recent demolition calls for some record. In December, 1815, pewholders of Hanley Church met to consider the advisability of establishing a school in connection with the National Society. By June, 1816, over £1,000 had been raised for the project by subscription and aid from the National and Diocesan Societies. The school was opened, in Lichfield Street, Hanley, on June 10th, 1817, with accommodation for one hundred and forty-seven boys and one hundred and sixteen girls. "It was erected for the free education of the public in general." The school fees were very modest and about 1885, were 4d. per week, per pupil—payable in advance! The school, maintained by the National Society until the passing of the Education Act of 1870 (which brought forward the Board of Education and made education a national responsibility) was demolished in August, 1954. The stone bearing the date of the St. John's School foundation was preserved.

Among other Hanley schools, at which fees were paid, was the Charles Street Wesleyan Day School, erected in 1838. Here students paid 3d. a week—a figure which rose to 1s. 3d. before the Act of 1870. This Act meant a compulsory elementary education for all, but it was not until the Act of 1891, that school fees were abolished, or greatly reduced. One year later (1892) powers were obtained for the levying of a rate for state and voluntary schools.

Children were often sent to work, "almost as soon as they could stand to work the jigger at a pottery." In 1852 efforts were made by leading churchmen in the six towns and district to keep children who attended National Schools from leaving at an early age. Children were thus encouraged by prizes for school work, but unfortunately this did not have the desired effect as, in many cases, parents would not allow their children to attend school for longer periods.

The mid-nineteenth century saw the founding of a number of schools known as Ragged Schools the pioneer of which was Lord Shaftesbury, first president of the Ragged School Union. These schools catered primarily for "destitute children of our town gratuitously" and for children who had been removed from day schools almost before their education had begun, to continue their education in the evening. One of the best known of these was the Hanley and Shelton Ragged School. This started, in the first instance, as the Hanley and Shelton Evening Free School, in December, 1851. The committee of this school was asking for subscriptions to support it in January, 1852. This Evening Free School was officially opened on February 2nd, 1852. Within two years 150 boys had been admitted and the number on the books in November, 1853, was 62, with an average attendance of 45. Ages ranged from nine to sixteen years. Of the sixty-two pupils, three had been with the school since its inception and twenty-five for a year. At this school, admittance was usually refused where the earnings of the family amounted to more than two shillings a week for each person belonging to it! No boy was admitted if he had been to a day school during the preceeding year. The boys, when admitted, were for the most part, "grossly ignorant," some not even knowing their letters while

few could read. Here, under Mr. Glass, reading was taught. Bible history and Church catechism were the main subjects. In connection with this religious and moral training a small library was equipped. This Hanley school assumed the actual name of Ragged School in 1856. It was a name that the founders had intended to use from the beginning in 1851, in preference to Evening Free School, but had refrained lest children should stay away from a school bearing such a name. It should not be confused with the Evening National Schools of that period in the district, and which catered for a manufacturing population where boys were so early withdrawn from the day schools. Thus these schools were usually open four nights a week. The charge was 2d. a week per pupil—the same as charged in the day schools. Boys were not restricted in any way, other than that they should not be below the age of ten.

At the Bryan Street General Ragged School, in the Chapel Fields, Hanley, there were 150 children on the books in April, 1858, and the average attendance on Sunday mornings was eighty and in the afternoon one hundred and thirty. Evening school was held here and also a girls' day school, for which the use of a room was allowed free. There was also a similar school in Ashley Street. These schools were amalgamated in March, 1861, under the title of the Borough Ragged Schools. They were managed by the same master between 1851 and 1861. The Bryan Street school was not originally connected with the Hanley and Shelton Ragged School.

Education was free, and in 1861, children were being taught by paid masters, four evenings a week between 7 p.m. and 9 p.m. By the time of amalgamation, the Chapel Fields School had admitted one thousand since the opening in February, 1852. The schools were financed, to a large extent, by donations from the pottery manufacturers. The original building in which the Hanley Ragged School was housed was known as the Workman's Refuge. This building had been erected at a cost of £270 and stood on a copyhold plot of land, 814 square yards in area. The owner, the enormously wealthy Mr. Joseph Mayer, intended to give the building to some religious body but he died before making the necessary legal arrangements.

Indeed, the will of Joseph Mayer has become legendary since his death on June 28th, 1860, aged 85, at his home in High Street (Town Road), Hanley. A codicil to the will, made two days before he died, seems to have been the cause of the extraordinary claims made by the people who believed themselves to be beneficiaries under the will. It is difficult to imagine how the great mystery arose as the jury of a Court of Probate, sitting in London in June, 1863, after several days consideration of the will and codicil, gave a verdict that these had been "duly executed and without undue influence" as was alleged. The bulk of the fortune, £200,000, appeared then to have been distributed, but so convinced were many that the money still existed that people from many parts of the world have visited Hanley during the present century in the hope of unravelling the mystery. A determined effort has been made during the last few years by expert investigators to obtain evidence which would result in the distribution of the money. Recently it seemed that the fortune and the interest that had accrued was almost within the grasp of the beneficiaries, some of whom were comparatively poor people. A Manchester newspaper in January, 1926, reported that the fortune then worth £1,800,000 was

lying in the Bank of England. Late in October, 1958, a private meeting of fifty-six of the claimants was held at the Victoria Hotel, Stoke, where a sombre note was struck on the matter—" hope seems to be fading." The astonishing fact emerges that it is now very doubtful whether the money of the vast fortune exists at all. This and the lapse of time serves only to heighten the mystery.

Returning to the Ragged School, the building was sold for £195 to a Mr. Forbes in October, 1864. It stood in Chapel Fields (Bryan Street) and was almost opposite to the present premises—opened in 1868. The new building, which was to cost £600, was planned by Mr. Snaith, the Hanley Borough Surveyor, who was also a member of the school committee. It was to consist of one large room with a moveable partition, two class rooms and a gallery and was to accommodate four hundred scholars. The foundation stone was laid by Lieut.-Colonel William S. Hoden, Mayor of Hanley, after a procession from the Town Hall, on Monday, August 26th, 1867. A bottle, containing sundry explanatory documents and coins, was deposited in a cavity beneath the stone, by Mr. W. H. Ringland, the honorary secretary. At this ceremony the school was referred to as the Bryan Street Ragged General School. The school was to be used in the day time and fees were to be nominal, but if the funds were sufficient, would be entirely free. There was also a savings bank, to encourage thrift, which had 200 depositors. It was non-sectarian and open to all. Opened on Tuesday, May 19th, 1868, the school was taken over by the Hanley School Board for two years and later in use as a day school until about 1892, since when it has been used entirely as a Sunday school. The Sunday school was attended at one period by the present Town Clerk of the City of Stoke-on-Trent, Mr. Harry Taylor, who still takes an interest in the school. The school, which celebrated its centenary in June, 1956, is financed, in the main, by private subscriptions and by the income derived from the yearly Sunday school anniversary. Efforts are now being made to raise money to erect a new building.

The Longton Industrial Band of Hope Ragged School was inaugurated in May, 1861, in Market Lane and appears to have had a successful start for, by November of the same year, there were 250 scholars, boys and girls, on the books, with six women teachers. Burslem also had its Ragged Schools and one of the memorable occasions in connection with them took place in November, 1861, when Richard Weaver, known as the " Converted Collier," preached on behalf of the schools in the Town Hall, Burslem, at which hundreds failed to gain admittance. Indeed it was said that " the great rush to gain admission had anything but a seemly appearance on the Sabbath day."

Among the more notable schools of this period were those known as the Earl Granville Schools, at Cobridge. These schools were opened in April, 1854, and the buildings are still in use. Lord Granville had built a number of houses at Cobridge, " for the comfort and social well-being of the workmen employed by the Shelton Colliery Company, and the Shelton Bar Iron Company," and the schools were added, " for the education of the children." The opening of the unfinished schools took place on the Monday afternoon of April 24th, 1854. Unfortunately Lord Granville, who had promised to be present, had to return to a cabinet meeting in London. There were at this time about 2,000 men employed at the colliery and

Shelton Bar of which the children of many of these men would attend the new school. The buildings were of the " Elizabethan order " designed by J. M. Dodd, of London, and built by Bryan's of Stoke. The original schools consisted of an infant school, a boys' school and a girls' school. Of red brick with stone facings, the schools had the inner walls lined with Ridgway's and Bale's patent glazed and coloured hollowed bricks, considered then to be the last word in quality. The school was heated by Perkins' patent hot-air apparatus. The first master was from Battersea College and the schoolmistresses from the Home and Colonial School. Here, it should be noted, religious teaching was placed first in the curriculum, followed by geography, arithmetic, reading, writing, English grammar and composition, English history, natural history, music, drawing and science of common things in connection with chemistry, experimental and theoretical. The school was well furnished and prizes of books and money were awarded, many of these being provided by an association formed of manufacturers and owners of property in the district. This association was peculiar to the Potteries and had been originated by Mr. Norris, the Government Inspector of Schools in this district, who pointed out that full education of the child could not be complete until the employment of children in factories was prohibited. Nevertheless one feels that the schools, provided by the beneficence of Lord Granville, were a very great advance in education in the year 1854, especially when one considers that three years earlier, in 1851, a school known as the Burslem School was held " in a loft over the stables belonging to the Legs-of-Man Inn, in the Market Place." This school, where art was the main subject, was the forerunner of the Burslem Art School of today. At this time, 1851, teaching in that loft was a distinguished teacher of art, William Mückley, who had secured the highest distinction in his examinations at South Kensington, London. Here, among the pupils, was a Mr. Kipling, father of Rudyard Kipling, and Joseph Walker, the son of a Burslem surgeon, who was the first to suggest a Wedgwood Memorial Institute and School of Art.

At the Cobridge school, prizes, given to encourage regular attendance, were first presented in 1856, and at that time regular attendance meant a possible 176 days a year and 130 in the evening school. The prizes were presented by Mr. Wragge, agent to Lord Granville.

In May, 1864, ten years after the opening of the Cobridge School, Hanley and Shelton, with a combined population of 25,350, had 1,700 children attending public week-day schools. Burslem, exclusive of Cobridge (population 17,200) had 960 children at school, Longton (16,742), 1,100 children, Stoke (population 11,385), 1,080 children, and Tunstall, St. Mary's Parish (population 9,560), 600 children. Three years later, on Wednesday, October 23rd, 1867, the National School at Sneyd, Burslem, was opened following a service in Sneyd Church. This was followed by a luncheon in the school. The school was built by Bennett and Brindley of Newcastle Street, Burslem, from designs by Mr. Dain of Burslem, to house 400 children. Built in the Gothic style the building was of red and blue bricks and was complete with turret spire and bell. The interior roof timbers, uncovered as was the fashion, were stained and varnished. The cost, including fittings, was £1,500.

One year later, in January, 1868, a bazaar was held to assist in raising money

for the building of a Church of England School, in King's Croft, Hartshill, on land given by a Mr. C. M. Campbell. Here, for several years, a school had been carried on in a cottage. The name of King's Croft was a reminder of the year 1615, when the demesne lands in that area were known as the King's Wood. This woodland covered much of the ground between Hartshill and Stoke and it was on the " Castle Cliff " that John Tomlinson erected his mansion, Cliff Ville (now St. Dominic's School) about the year 1812.

A valuable form of evening education which must not be overlooked was that provided by the Stoke Atheneum, the Longton Atheneum and the Mechanics Institute. Here, lectures, which were extremely well attended, were given on general and scientific subjects for a fee of approximately ten shillings a year. Probably the Mechanics Institute, in Frederick Street (now Gitana Street), the premises of which are now occupied by the Methodist Bookshop and Café was the most notable and more details are given later in this chapter.

If education generally was desirable in the six towns it would be surely no less true to say that there was an almost equal demand for art instruction in relation to the pottery works. After three years' agitation, there came into being, in January, 1847, the Pottery Schools of Design, in Hanley and Stoke. These schools of design were not unique for they were to be found in London and other parts of the country. They were backed by the Government and administered by local committees.

The schools were opened, on January 25th, for several days and evenings each week and were equipped with the casts from the best models, both ancient and modern, together with other apparatus and books all suitable for elementary art instruction. The fees were 3s. 6d. for men and 3s. for women per three months.

In December, 1852, a meeting was held in Burslem for the purpose of promoting a School of Design in that town. The assembly was told by Mr. Cole, of the Government Department of Practical Art, that the way was not clear for the establishment of another school of design in the Potteries, but something could be done in establishing drawing classes in connection with the existing institution which, as already mentioned, was held in a loft. It was suggested that a master be appointed with a salary of £70 per annum, paid by the Government, and that this man should visit suitable schools in the area for a fee, per school, of £10 a year. The scholars would have two lessons of one hour each a week. Mr. Cole suggested also that a " General School " should be established and equipped with a set of elementary models, costing £7, and a large set of models, costing £26. The pupils would pay 6d. for five evening lessons per week. The cost of the models, rent of rooms, etc., would be defrayed by a committee out of subscriptions and pupils fees, plus a Government grant of £40 for the first year, on the understanding that if the fees exceeded £70, the master was to have half. At this Government School of Design, part-time instruction was given in elementary drawing, at fees of 1s. 6d. a month for male workers and 1s. 9d. was quoted for female workers, whilst private classes were held for the sons of the management. The school was said to have been one of the most successful in the kingdom, but it laboured under great difficulties. These difficulties, of a school so inadequately supported financially, can well be envisaged for there was no help from the wealthier portion of the inhabitants

of Burslem. The school carried on, presumably still in the loft of the inn, for it was said that the premises were " utterly unsuitable, surrounded by nuisances . . . and of a kind to preclude the attendance of the softer sex, and to destroy all hope of maintaining a female class." Also the talented art master, Mr. Mückley, left for a far better position at the Wolverhampton School of Art. The result was that, in June, 1858, the Government School of Art, also known as the Burslem School of Art, was closed. The dismayed students offered to devote their holidays to a personal canvass of the residents of Burslem to raise funds with which to erect a new school of art, in order that the " mother of the Potteries " should not be disgraced by the loss of such a school.

Some idea of the success of the old school will be gained from the fact that when it closed there were, waiting to be collected by successful students, nine national medals, three bronze medals, three boxes of mathematical instruments, five other prizes and twelve local book prizes, in addition to which, two students had been received by the Department of Science and Art, for training as teachers. The prizes were presented at a public meeting in September, 1858, in the Town Hall.

If the School of Design, in Burslem, was in 1858, for the time a closed chapter, a far reaching project which would eventually incorporate it, was brightening the horizon in Burslem. Some two years later in Burslem, in the way of a belated memorial to its illustrious son, Josiah Wedgwood, a scheme was formally inaugurated on January 27th, 1859, at a meeting, at which the Earl of Carlisle and the Duchess of Sutherland were present, in the Town Hall.

In April, 1860, it was announced that the committee for promoting the establishment of the Wedgwood Institute, had succeeded in purchasing a suitable site, on which to build, in Queen Street, Burslem, opposite to the pottery works of Messrs. Cork & Edge. In May, of the same year, the Building Committee advertised for " Competing Designs for the erection of a suitable building in Burslem, combining School of Art, Museum and Free Library, as a memorial to the late Josiah Wedgwood, F.S.A." Premiums of £20 and £10 were to be awarded to the two competitors whose designs were approved. Four were selected from the 29 submitted and a design, bearing the motto, " Think Well on't," gained the premier award, being the work of Ford & Meyer, architects of Burslem. Nevertheless these designs were discarded.

Three years later, in February, 1863, it was reported that the land had been purchased at a cost of £1,500. The " wretched ruins " were cleared away, the plot fenced in and a keeper's house erected. The plans finally chosen, from a second competition, were those of Mr. G. B. Nichols. These complied with the requirements of the Department of Science and Art and entitled the institute to a grant from the Government. The building was to cost £3,000, furniture £1,000 and incidentals £300. On Monday, October 26th, 1863, the foundation stone was laid by the Rt. Hon. W. E. Gladstone, M.P., Chancellor of the Exchequer. Burslem was en fête for the occasion which took place in brilliant sunshine. Triumphal arches had been erected at the top of Newcastle Street and Brickhouse Street, surmounted by a model of Britannia and the Royal Arms, whilst most of the inhabitants hung out flags from their houses. The streets were gaily decorated. By

10 a.m. the streets were thronged with people. The site of the building was occupied by a lofty erection on which were scarlet covered seats arranged in the form of an amphitheatre of half a circle to accommodate nine hundred persons. At 1.15 the arrival of Mr. Gladstone was heralded by a fanfare of trumpets. Beneath the foundation stone was placed a china casket made by Messrs. Davenports, containing a record, on vellum, of the building to be erected. The aperture containing the casket was closed with a china slab bearing an inscription. The trowel used by Mr. Gladstone was unique. It was made in the finest china by James McIntyre, of Waterloo Road, Cobridge, from designs furnished by Mr. W. Maddock. Beautifully decorated, it had the appearance of enamelled gold. The ground colour of the trowel was a delicate amethyst, over which was traced light green scroll work, Mr. Gladstone's Arms, the arms of the Local Board of Health and a suitable inscription, all enclosed in medallions upon the blade, and surrounded by a rich border of figured gold. The blade was connected to the handle by a device in silver made by Mr. Mayer of Liverpool. The back of the blade was ornamented in the same style as the face and had, in the centre, a medallion enclosing the Portland Vase. Mr. Gladstone made a very long speech eulogizing Josiah Wedgwood. At the luncheon which followed every table was ornamented with exquisite vases, busts and statuettes from the Wedgwood works at Etruria and other factories in the district. Also on view was a marble bust of Josiah Wedgwood, by the sculptor Fontana, which was presented by Mr. Joseph Mayer, F.S.A., of Liverpool. In the centre of a display of pottery were two pairs of magnificent vases, in jasper, one of which was of "colossal proportions." The meal was prepared by Mr. Spence, of the Marquis of Granby Inn, Burslem. The toasts at the luncheon were many and speeches were made at extraordinary length.

If the original scheme for the building had been delayed by a counter project to the honour of Josiah Wedgwood, that culminating in the unveiling of the bronze statue erected opposite Stoke Station on February 24th, 1863, there were to be other delays, due to financial difficulties. For several years after the foundation stone was laid an ugly barricade was to be seen, in Queen Street, behind which all work had ceased. It was not until April, 1869, that untiring efforts, especially those of the honorary secretary, Mr. W. Woodall, made possible the opening ceremony by the Earl de Grey and Ripon, on Wednesday, April 21st. By this date only £1,000 was outstanding on the building for which an exhibition and bazaar at Alton Towers, in 1865, had raised almost £2,000. In addition, Burslem was the first town in North Staffordshire, and second in the country, to act on the Free Libraries Act in 1863, thereby ensuring a permanent income to the institute of about £200.

The Wedgwood Institute is of classical ceramic design, known as the Pointed Style, based upon types of ceramic architecture well known in Northern Italy in the fifteenth and sixteenth centuries, with the liberal use of terra-cotta details whose were the work of Rowland Morris and William Wright, two "national scholars" selected from the Potteries Schools of Art. A unique exhibition of pottery and other treasures from many parts of the world were on display at the opening ceremony. Afterwards some one hundred and fifty guests took lunch in the lecture theatre of the Institute. Among the honoured guests were Mr. Samuel Smiles and

Mr. Llewellyn Jewitt, F.S.A., both writers and historians.

The month following the opening of the Wedgwood Institute was also memorable for the people of Burslem for on Monday, May 24th, 1869, prominent townsmen, under the presidency of Mr. H. T. Davenport, met in the new building to consider the formation of a school of art associated with the Institute. Stoke and Hanley already possessed their own art schools with 100 and 180 pupils respectively. The time was opportune, for it will be recalled that the old School of Design, at Burslem, was broken up on account of the lack of suitable premises. The Chief Bailiff reminded the meeting that the public would expect the proceeds of the penny rate to be applied to the establishment of a free library to which they were already committed to open at the earliest opportunity. The meeting closed with the inauguration of a subscription list. Mr. G. Theaker, of the South Kensington Art School, was appointed headmaster—a position he held until his death in 1902. The school opened in Burslem in October, 1869, with the first exhibition of work taking place in April, 1870.

Before recording more of the Burslem Art School, it will be advisable to present a more complete picture of the Wedgwood Institute. The Free Library was opened in 1870 (the first catalogue contained reference to 1,500 volumes and gifts) so that fears that the new School of Art, within the Institute, would use the money provided by the rates for the purpose of a library were mainly dispelled. It was decided that in celebration of Queen Victoria's Jubilee of 1887, the Institute should be enlarged. In 1892, the Burslem Corporation, under powers conferred by the Technical Instruction Act, took over the Institute, and the new Technological Schools were opened by Princess Louise on October 15th, 1894. Mr. James Maddock and Mr. Thomas Hulme each contributed £1,000 towards the cost, £7,500. By 1898 there were 400 students attending the science and art classes. It was to this school that Sir Oliver Lodge once came as a student. Mr. Thomas Hulme was honorary curator and his fellow townsmen decided to erect some fitting "memorial" to him for which a sum of £400 was subscribed. Mr. Woodall proposed that they should permit him to embody their wishes and gifts in the form of a permanent addition to the building. To the £400 he added £600 and a much needed Art Museum was erected to which Mr. Hulme devoted himself. Here a great collection of Wedgwood ware was gradually brought together, mainly paid for by Mr. Hulme. This fine collection he presented to the town of Burslem in 1894, when his portrait was unveiled by the Princess Louise. It was not uncommon for Mr. Hulme to pay £50 for a piece of Wedgwood. He was curator of these treasures, which included specimens of the work of Toft, Turner, Elers, Adams, Palmer, Neale, Spode, Hollins, Mayer and others until his death in 1905. He was also organist from 1865 to 1905 at the Hill Top Church which presented him with a vase containing his portrait shortly before his death.

It was in the Wedgwood Institute, about the year 1875, that the school, known as the Burslem Endowed School for Boys, was carried on for a number of years. The school, which numbered among its school boys such names as Arnold Bennett —known to his schoolmates as Knocker—and Harold Hales, was moved from the Institute to Longport Hall after the summer recess in 1880, owing to the apparent

unsuitability of the Wedgwood Institute for accommodating a school. Longport Hall was a mansion situated on ground, or very near, the building which, until recent years, was the St. Paul's Vicarage, a house which still stands and now used for industrial purposes. Arnold Bennett and Harold Hales were also pupils here. The school was under the trustees and was in every sense a grammar school.

Although the Institute had not been considered suitable for a boys' school it was considered suitable for a girls' school and within one year of the removal to Longport Hall a Burslem High School for Girls was established within it. It opened with twelve pupils and two women teachers. Eight years later there were four mistresses and the school was packed to capacity. School hours were from 9.30—1.45 p.m. when the pupils were released, with plenty of lessons to take home, to a late dinner. The headmistress was a Miss Offord who taught Latin and other subjects. The school was carried on in four rooms of the Institute. The most distant and depressing of these rooms was located at the end of a long passage, to the right of the caretaker's cottage. It was this lack of space and awkwardness that was the reason for the eventual closing of the school, but not before it had made its mark in the district. A prominent old pupil, a relative of Arnold Bennett, recorded that one liked best to remember its trivialities, two examples of which are here quoted. " Miss Offord would break an egg and drink it raw—before the assembled school. Daily this happened, at 'break', and daily the school was breathless with expectance until the ceremony was over." On another occasion Mr. F. E. Kitchener, famous headmaster of Newcastle High School, was to present the prizes and vast quantities of flowers bedecked the rooms. When at last Mr. Kitchener arrived pupils were called to remove all the flowers as he suffered from hay-fever!

In July, 1909, a new Library and Reading Room, adapted from the old, was opened in the Wedgwood Institute. Today the building still renders good service. In September, 1925, a day school of commerce which is now known as the Stoke-on-Trent College of Commerce, started. Shorthand, typing and other commercial subjects are taught daily and in the evenings, whilst the reading room serves the public of Burslem, but much of the old glory has departed, A new college of commerce was first proposed in 1935 and in 1958, after many setbacks, it seems likely that a new building will be erected for this purpose at Shelton, for in January of this year the Educational Committee were asked to approve acceptance of a tender for almost £151,000 for the construction of the building.

Something has already been written of early art training within which the Wedgwood Institute played its part. As early as 1853, at a meeting of the Stoke and Hanley Schools of Design in the Wesleyan School Room, Burslem, the question of a central art school was discussed with a view to it being attended by pupils from the six towns and Newcastle, but it was not until Friday, February 9th, 1906, that the foundation stone was laid, by the Earl of Dartmouth, of a new School of Art for Burslem, which was eventually to become the Central City of Stoke-on-Trent College of Art, in which the other local schools of art were embodied. The building is situated opposite to the Wedgwood Institute, in Queen Street, on land given to Burslem for that purpose by Mr. Thomas Hulme, in 1904. It was the site of the old

manufactory of Messrs. Wood & Baker (and formerly of Cork & Edge). The school with a frontage of 107 feet contains a central hall, many class rooms and studios with a northern aspect. The tawny terra-cotta dressings on the front were supplied by Doultons. The estimated cost of the building was £6,500 together with another £1,500 for furnishing. For the stone-laying ceremony an engraved silver trowel was presented. It bore an inscription, the Arms of Burslem and the motto " Ready " and had a carved ivory handle. Beneath the stone was deposited a brown earthenware jar containing copies of the " Sentinel " and the " Staffordshire Advertiser," a copy of the programme for the day and several coins of the time. On either side of the jar were placed several articles of Burslem-made earthenware and tiles. These were made by Doultons, Maddocks, Wood & Sons, The Marden Tile Company, Wade & Company, Malkin & Company and Messrs. Boote & Company. The new art school was to become well-known throughout the country, under such art masters as Stanley Thorogood, Gordon Forsyth, Reginald Haggar and R. H. Marlow, the present principal. Under Mr. Forsyth, a Junior Art Department was formed with a view to supplying industry with a more highly trained apprentice. In 1952, the local schools of art were embodied in the City of Stoke-on-Trent College of Art.

One of the most outstanding seats of learning in the district, particularly in the latter half of the nineteenth century, was the Potteries Mechanics Institute. The original institution, one of the oldest in the country, was established under the patronage of the Duke of Sutherland, on November 14th, 1825. It was founded by a few " friends to the promotion of general information " who assembled in a room at the Swan Inn, which then stood on the site now occupied by the Market Hall, Hanley. The following year, on January 2nd, a meeting of the promoters was held in the British schoolroom with Mr. Josiah Wedgwood (the second) in the chair. The members met for a year or two in a schoolroom at Etruria, probably the thatched school which was built by Mr. Wedgwood in the Grove, in 1814, the site of which is now occupied by the Etruria Church Hall. The members then moved to premises in Parliament Row, Hanley, but by 1832 the members had so increased as to justify the erection of their own building. The appeal for subscriptions was so successful that by March, 1834, the site for the first institution was bought and one year later the building was opened on June 30th, 1835, at a cost of £600, in Frederick Street, Shelton, now Gitana Street, Hanley. The building contained a lecture room, library, laboratory and classrooms. Membership fees were low and some three-hundred people took advantage of this annually and were able to acquire knowledge from its 1,500 books and from the numerous lectures held there on science subjects including geology, botany and astronomy, as well as drawing and design and chemistry, in connection with pottery manufacture. In August, 1838, following a successful exhibition, a meeting was held with the intention of incorporating a museum with the institution and to erect a new building, but the project sank into abeyance until 1844 when further efforts were made to raise the necessary money.

An event, important to the institution and to the history of Hanley, took place in 1848, when the greater part of the site for a new building was purchased in Pall Mall, Hanley. Such was the cost of the land and the state of industry at this time that the proposed building had to be temporary abandoned. The situation was saved by

a gift of £550 by Mr. William Brownfield, in the spring of 1859, during his Mayoralty of Hanley, towards a new building. The gift was made on condition that the building should contain a reading room for the special accommodation of working men, accessible at a small charge, together with the use of the library of the institution. Work on the new building—estimated then to cost £4,000, but which eventually cost over £5,500—started on October 27th, 1859, and the foundation stone was laid by Mr. Brownfield. Mr. R. Scrivener was the architect. The frontage of the new building was completed in Hollington Stone in what was known as the modernised Classic School. It was complete with Tuscan columns and pilasters which supported a cornice, above which was another range of columns of Ionic design, with carved wreaths, vases and other ornamentations. The building was lighted by eleven plate-glass windows on its frontage. The main lecture hall, known in the first half of the twentieth century as the Mechanics Reading Room, was lighted after dusk by six bronze pendant gasaliers of beautiful pattern, each having twenty-four bats-wing burners. Also in the building was a kitchen in which catering for tea and dinner parties could be carried out.

On Tuesday, October 15th, 1861, the new Mechanics Institute was opened with a public soirée, at which seven hundred sat down to tea. Here, for one shilling for three months, the working men of Hanley and district had access to one hundred of the leading newspapers and periodicals and to some 3,700 books in the library, in addition to a small museum. There was even a drinking fountain attached to the wall of the reading room. The top part of this building became unsafe through subsidence and was demolished in March, 1955.

Lest the reader should gain the impression that all was well with education in the six towns of the Potteries at this time—and conditions were slowly improving—it will not be out of place to again mention something of the state of educational affairs in the early sixties.

The children at this period were still working long hours in the pot-works and were inevitably stunted both in growth and education. Many of them were under nine years of age and there was no Factory Act to prevent this. Children, if they attended school at all, would attend for a few hours only and the majority left for good before they were ten years old! In fifteen of the principal (National) schools in the Pottery towns in 1859, seventy-four per cent. of the pupils left school before the age of ten, in 1860 seventy-six per cent. and in 1861 seventy-seven per cent.—an average of seventy-five per cent. Some of these children did however leave to attend other schools, but the percentage was over thirty per cent. higher than in the non-manufacturing districts. Out of six hundred children questioned whilst working on the pot-banks, one-third were unable to read the Testament and in about one-half of the factories, where the educational enquiry was made, forty-eight per cent. were found to be untaught.

Thus the Potteries region was far behind compared with the textile industry. Even there these shocking conditions prevailed, where the law demanded that no child should be employed until eight years old and no child under thirteen years of age for more than six and a half hours a day, or ten hours in alternate days. There, too,

a child working every day had to attend school for three hours or if alternate days for five hours and the mill owners had to pay schoolmasters a sum not exceeding two-pence per week, or a penny on each shilling of the child's wages as directed by the inspector.

There were such mills at Newcastle and at one, a cotton mill, children were paid one and eight-pence per week for half-time work, out of which two-pence or three-pence was paid by the manufacturer for the schooling of the child. Even such small measures of compulsory education was frowned upon by the pottery manufacturers in general who regarded the half-time system as a nuisance as did the parents who wanted the earnings of the children who were employed full time. " The money earned by the children and parents is spent as fast as it is received by the parents," declared a Government Inspector, at Longton in 1871, " who are dead of feelings of decency or self-respect and the children are allowed to grow up in a sadder state than the parents." The dwellings in Longton, in general, were, he said, incompatible with cleanliness and order. Some had but one living-room and one bedroom, very few having two bedrooms. Only with the greatest difficulty were the school fees, of 1½d. to 2d. for half-timers and 2d. to 3d. for full-timers, extracted from the parents and then when a stand was finally made some " wretched tattered woman would come and entreat for a few days longer credit. In nine cases out of ten the pupil would disappear." Statements were contradictory. By 1871, although the social state of Longton had not yet improved, parents seemed more educationally minded. " Nearly all school fees are paid on Monday and not three-pence a week is now lost in my school," declared Mr. Smith, the schoolmaster at the Longton National School. Mr. Smith seems to have been an ideal master for under him the Longton boys were no longer shoe-less, stocking-less, with apologies for shirts, nor in cast-off clothes of a militia regiment with large rents pinned up to prevent the whole garment from falling to pieces! Thus the application of the Factory Act, to the Potteries, was still an open question.

Nevertheless the release of the child from these early and unjust labours was as a rapidly approaching clear sky on the horizon of life in the Potteries, and education was coming to be looked upon as a necessity. If not an enlightened age, things were improving. Of the notable exhibition of 1862, it was said of the pottery wares " the beauty of the English pottery exhibits held an incontestable supremacy over all foreign competitors."

Two years later, in 1864, the Factory Extension Act (the Earthenware Act) of that year, brought new hope to the educationalists. In Longton, a Mr. Baker, an Inspector of Factories, together with the rector of Longton, had taken the room of an independant chapel which was only used for a Sunday school in anticipation of the Act with the result that with the coming of the Act they had over one hundred boys and girls to start with. Later the National Schools were rebuilt and enlarged and the receipts from these well-attended schools, for 1870, was over £1,000, with over 1,100 children of all ages in daily attendance, including the half-timers from the factories. This compulsory half-time education in the six towns brought in by the Earthenware Act, resulted in some progress by pupils at the schools. In 1865 there were employed in all the potteries, 785 boys and 318 girls—a total of 1,103 at half-time

school; of these "148 did not know their letters, 351 knew the alphabet only, 279 could not read syllables, 236 could just read, 53 could read well and 335 could also write." All the early schools, the Schools of Art, the Mechanics Institution and the great Wedgwood Institute played their parts in the advancement of education locally, until in 1870 the Elementary Education Act came into being. It was to open up a new era of education in the Potteries with Hanley being the first town to operate the new Act.

In October, 1870, the Town Clerk read out a letter from the Education Department in London, requesting the Council to supply detailed information respecting the state of elementary education in the borough with a view to the establishment of a School Board. If this was opposed by the Council, the Government would direct an enquiry to be made on the spot. The Council could however apply for the establishment of a School Board and this was done on the proposal of Alderman Wedgwood.

The Act provided for the appointment of a Board in every district where there was no school accommodation. The Boards were given compulsory powers to buy land and could lease or take over any private schools. The Board was to fix school fees and excuse poor parents from payment and, if necessary, establish schools that were entirely free of charge. Costs were to come out of the Borough rates. The Board was empowered to make bye-laws fixing the age of attendance at school between the ages of five and thirteen and also the school hours, with penalties for non-attendance. No child was bound to attend any religious observance or instruction his parents objected to. Public Elementary School children were not bound to go to church, chapel, or to attend Sunday School and religious instruction was only given at the beginning and end of the school day. Children need not attend, if attending other schools, and here the Church Schools—then, and in many ways still the backbone of English education, continued to give religious instruction which to right thinking people must ever be the first and last aim in life. If the educationalist could but pause to devote more time to what should be the ultimate end of education, that of preparing the child for its life in the hereafter, as well as gaining an earthly living, the world would surely be more enlightened.

Board Schools were to be under regular inspection, except for religious instruction. No catechism or distinctive religious formula was to be taught. Despite this the Hanley Board decreed that their schools should be opened each morning with singing and prayer and that the Bible should be read by the principal teacher and that portions of the text should be committed to memory by the pupils. This was to take place between 9.30 and 10 a.m. and between 2 and 2.15 p.m.

Government grants were to be made to the new schools to prevent their exceeding the income they obtained from all other sources, but not for religious instruction. A School Board was formed in December, 1870, in Hanley. The first Clerk to the Board was Mr. Alfred Smith, previously master at Etruria Wesleyan School, who in turn was followed by Mr. J. Hodder. Well known men were nominated to serve on the Board in the proportion of six churchmen, one Wesleyan Methodist, one Unitarian, one Roman Catholic, four Independents, one new Connexion and two whose religious opinions were not known. Of these, nine were elected by poll. The first meeting was held on January 7th, 1871, and Mr. Wragge, who was associated with Lord

Granville's foundry, was elected chairman. A significant question was put to the newly formed Board, by Mr. C. F. Wedgwood, who enquired if the Board would take over the Etruria Wesleyan School as his father had given it up and the master was dependent on the school fees alone and his salary was now reduced to one-third of its former amount. If the Board could not take over the school at once Mr. Wedgwood said it would have to be closed. Happily this did not take place and the Etruria school became one of the best in the area. Here, boys, girls and infants were taught with a capacity for 150 boys (used to the full) and for 80 girls (average attendance of 75) together with room for 80 infants (average attendance 70). The school was the property of the Wedgwood family and Mr. Wedgwood offered it to the Board for £463, or at a rent of £30 a year. At this time, March, 1871, there was still a Dame school in Etruria.

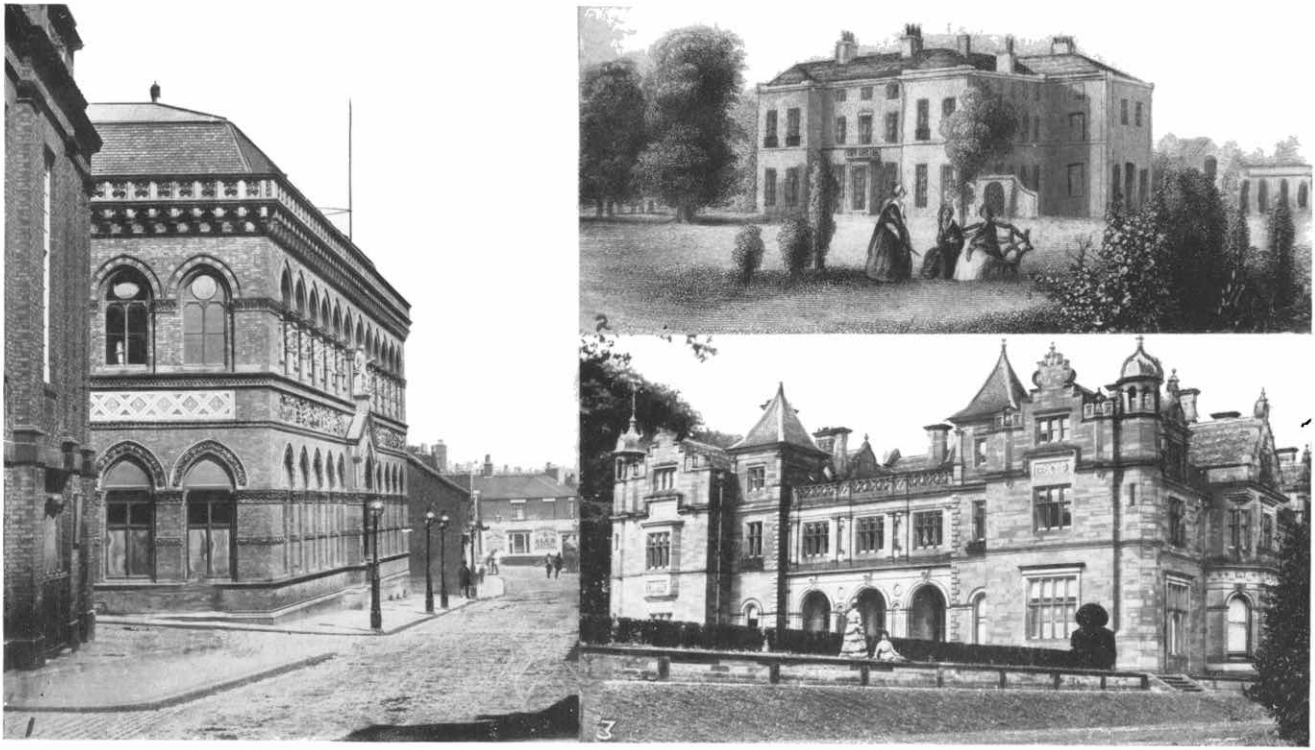
During the first year the Hanley School Board acquired the following schools: Bethesda, with accommodation for 727 children; Bryan Street Ragged School, 204 children; Workmen's Refuge, 108 children; Bedford (Ridgway Memorial) School, 270 children; and Etruria Wesleyan, 310 children. By 1874, there were eleven Board Schools in the Borough of Hanley and twenty-one other elementary schools.

Between 1870 and 1900, Board Schools were erected in all the six towns. The first site for the erection of a school was in Broom Street, Hanley, followed by sites in Wharf Lane, Great York Street and Eastwood Vale. In the first ten years six schools were built, raising the number to seventeen Board Schools, against eighteen other public elementary schools in 1880. School libraries were established in 1881, mainly through the efforts of Mr. T. Pidduck, without cost to the rate payer. This was followed, in 1882, by classes in cookery.

The scheme was a tremendous step forward in local education. Many of the new schools, such as Cannon Street School, Hanley, were built in the plain Gothic style. This school was built by George Ellis of Hanley and lighted by gas. It was opened in February, 1882, with accommodation for one thousand children.

In September, 1891, two other important schools were opened by the Board, those of Cauldon Road and the Grove School, Northwood, each costing about £4,400. Further new buildings were added at Cauldon Road by the Board, in 1896, for use as a mixed school, at a cost of £3,680. This was lighted by electricity. The new buildings of the Hanley Grove Schools, built at a cost of £10,000, were opened in August, 1902. Since the advent of the new Act the attendance at the Board Schools, in Hanley alone, had increased from 3,550 to 7,800 in 1882.

One of the most notable schools built by the Hanley School Board was a Higher Grade School, opened on April 18th, 1894, and which still stands on ground situated between Old Hall Street and Birch Terrace. With equipment, it cost £18,000, and was probably the Board's most ambitious and certainly one of their last schemes. There were 720 pupils of which 76 were in the science section of the school. Sixpence a week was the fee charged to scholars which was later raised to one shilling for the children of non-ratepayers who came from outside the borough. From March, 1898, free admission was granted to children from the Hanley public elementary schools who were fit to be placed in " standard 7," provided that there was room for them. In the same year the school gained its first major success in the form of the



For information see overleaf

1. The Wedgwood Institute, Burslem, about 1880. It was here, in 1884, that Arnold Bennett won a book prize for physics at the Wedgwood Institute evening class. The institute has housed schools and many special groups of commercial education. One of these, the College of Commerce, with A. E. Hayes, M.A., as Principal, is to move in September 1960 to the City Education Committee's magnificent modern three-storey building at Shelton, built at a cost of about £139,000. Facing the main road to Stoke, the building stands on land that was once the garden and grounds to Mr. Ridgway's house, Cauldon Place, with the then famous manufactury stretching back to what is now College Road. This large house was demolished shortly after World War II. The Wedgwood Institute also housed the first Public Free Library and it is interesting to note that Burslem adopted the Free Library Acts, in 1863, eight years after Parliament first passed the Acts. The library opened in 1870 in the Wedgwood Institute and the stock of 1,500 volumes was available for a population of about 25,000 people to whom 15,000 issues were made during the first year.

   Hanley adopted the Act in 1884. The whole of the Mechanics Institution buildings—with the exception of the then new Reading Room—was offered, and taken over at a rental of £50 a year. The new Free Library was to maintain the building and take over a debt of £250.

   In Stoke the Act was adopted in 1875 and a site was given, together with £100, by Mr. Colin Campbell, whilst The Athenaeum Committee gave up their library and museum to the town with a further gift of £150. The cost of the new library building, including furnishing, was £4,000. The foundation stone was laid in December 1877 and the building opened in the following November.

   Tunstall adopted the Library Acts in 1885. The library, then of about 4,000 books, was accommodated in the Victoria Institute which was built in 1889 as a library, museum, schools of art and science and town offices.

   Longton adopted the Acts in 1891 and in 1892 a library with 2,500 books, the gift of the Athenaeum Committee, was accommodated in one corner of the Town Hall buildings. About 1896 the Duke of Sutherland gave a site and a generous subscription for a new building to house the library.

   Fenton was the last of the towns to adopt the Library Acts and received £5,000 from the Andrew Carnegie Foundation towards the library.

2. Longport Hall in 1843. Home of the Davenport family it was known also as Davenport Hall towards the close of the century. It was used for a number of years, about 1880, to house the Burslem Endowed School which had its foundation in the Wedgwood Institute. The Hall stood to the rear of St. Paul's Church Rectory (now used as industrial premises) and its acres of ground stretched down to the canal. Here hunters and race horses were kept by Colonel Davenport. The building appears to have been demolished about the end of the nineteenth century.

3. Keele Hall about 1902. It now forms part of the University College of North Staffordshire. It was here near to the hall lake that the Reverend W. Sneyd laid out a beautiful fernery using some of the stone-work from the old Abbey at Hulton. On February 28th, 1896, the chairman and vice-chairman of the Hanley Town Council visited Keele Hall and inspected the relics which had been taken from Hulton Abbey. They consisted of four stone coffin lids, two column bases, two springing stones, one section of column, one mullion for window, two segments of moulding, and one part window head. Mr. Ralph Sneyd had offered these relics on loan. The Council meeting in March accepted the offer and the corporate common seal was affixed to an agreement between Mr. Ralph Sneyd and the Corporation. The exhibits were to be placed in the small room at the Museum. Attendance figures showed that 1,720 persons had visited the Museum during February 1896.

London Matriculation, awarded to May Lawton, who later became a teacher at the school. The first University Scholarship was won, in 1900, by L. N. Barker. Such was the success of the new school that rooms in the Wesleyan Chapel Sunday School were also used in 1899, and continued in use until 1935. Mr. Frank Wedgwood presented the awards at the school's first speech-day, in 1902. The name of the school was changed to the Hanley Municipal Secondary School in 1905, the governing body of which had been established the previous year. The School suffered from subsidence due to mining, and the boys left the building in 1939. On the declaration of war it was occupied by the military authorities. The boys did not return after the war. The school was accommodated for a year at Brownhills High School working a double shift system with the girls' school. In November, 1940, the school moved to new premises at Chell, now occupied by the Chell County Secondary School. Eventually in September, 1953, the school, still known as the Hanley High School, moved to the completely modern buildings at Bucknall. The opening ceremony was performed in the October by Dr. A. T. Green, a former old boy. It is in a good setting, complete with extensive playing fields.

It was still left to the Sunday School to provide religious education of which many local School Board governors were acutely and uncomfortably aware. They were however powerless in this question and as the chairman, Mr. F. Wragge, said, he hoped that the schools, under God's blessing, might produce good results. As already stated, school fees were small and no fee was required if the child came of parents unable to pay, and the question of payment by individuals was completely abolished by an Act at the end of the century. This was doubtless the fairest way of dealing with the matter, although the liberality of the local Boards cannot be doubted. Nevertheless, an interesting case was quoted in the early days of the Boards, in May, 1872, by *The Archer*, a local news sheet, whose barbs were often over sharp. *The Archer* said that a poor woman was summoned for not sending her children to school although she had applied to the Board for payment of the fees as her husband's earnings were only 18 shillings a week. The Board however appeared to consider that " 3d. per day, per head, was sufficient to find rent, food, clothing, taxes and school fees and declined to relieve them of the payment of school fees."

At Burslem the School Board was conducted in much the same manner as those in the other towns and as the end of the nineteenth century approached, the schools were getting good reports from the inspectors. It was at the Park Road Schools (opened in April, 1896) that the chairman of the Burslem School Board reminded the children at their prize day, that the year 1897 was the " Great Jubilee of Queen Victoria." One of the last acts the Boards were to witness was the age for school attendance. By the Education Act of 1900, children were required to attend school between the ages of 5 and 14. In addition the maximum penalty for the breach of a bye-law requiring the attendance of a child at an elementary school was raised from five shillings to twenty shillings!

The Education Act of 1902 introduced the Local Education Authority and saw the passing away of the School Boards in the towns of the Potteries. The Act provided for secondary school facilities, the administration being handed over to the

County and Borough Councils, who in turn delegated the duties to education committees, of which there were six in the Potteries between 1902 and Federation in 1910. With the Federation of the six towns into the County Borough of Stoke-on-Trent a single education committee was formed with Alderman Philip Elliott as its first chairman.

One of the first duties carried out by the new committee was an investigation into the salaries of school teachers in Stoke-on-Trent. At a meeting, held in June, 1911, it was recommended that the automatic increases of salaries of teachers, in elementary schools, should be discontinued and all increases made at the discretion of the Education Committee. A uniform scale of salaries was recommended for the whole borough. Headmasters were to receive £160, rising to £180 per annum where the school had an average attendance of under 200 pupils. The figure rose according to the number of children at the school and the highest figures quoted were £220, rising to £240 for schools with 500 children and over. Headmistresses received £100, rising to £110 for schools with under 100 children and £120 to £130 with 400 or more children. Certificated assistant-masters received from £80, rising to £150, if they were trained, or £70 to £130 untrained, and assistant-mistresses £70, rising to £100 trained, or £60 to £85 untrained. Uncertificated assistant-masters began with £55, rising to £75, uncertificated assistant-mistresses £40, rising to £60. Supplementary teachers were paid £25, rising to £35. Men pupil teachers received the first year £20, women in the first year £13. The pay for male student teachers was £30 per annum and for females £25 per annum. These figures make an interesting and valuable comparison with the rates of pay at any given period in the history of teaching.

In 1906, four years before Federation, there was formed in Longton a group for the advancement of adult education. This group, which in 1911 formed the North Staffordshire Miners' Higher Education Movement, became affiliated to the Workers' Educational Association at its first meeting in 1911. It later became the North Staffordshire Adult Education Association and in 1921, the name was changed to the North Staffordshire Workers' Educational Association and this group, which in its early days was affiliated, became an official branch of the National Workers' Education Association.

The first annual report of the North Staffordshire Miners' Higher Educational Movement (a movement to assist the general culture of the mining villages by means of lectures, assisted by senior members of the Longton group, the Longton Tutorial class and the Longton University Extensions Guild) showed that there was a great need for learning in the surrounding district.

Early in June, 1912, the start of building operations at Stoke on a Central School of Science and Technology, made important news in Stoke-on-Trent. It was the culmination of a scheme proposed several years previously by Mr. F. E. Kitchener which had failed to mature at the time. No official stone-laying ceremony was held and the ground, which was given by Mr. A. S. Bolton, of Oakamoor, was cleared and work on the building, which was to be completed in eighteen months by Mr. Thomas Godwin, builder of Hanley, was begun. The site was described as near Stoke Railway Station. It later faced Victoria Road, now College Road. Here, in 1908,

temporary structures had been erected for the accommodation of pottery and mining classes, and the history of the project might be said to date back to May, 1855, when a meeting was held at the North Staffordshire Hotel in connection with a "proposed School of Mining and Chemical Science."

The new building was opened on Monday, April 20th, 1914, by the Hon. J. A. Pease, M.P., President of the Board of Trade. The cost of the building was about £23,000. The outstanding frieze over the main entrance, representative of the local pottery and mining industry, was designed and modelled by Mr. C. Vyse, a former student of the Hanley Art School. The school was managed by a Board of Governors with the Mayor of Stoke-on-Trent, Alderman Elliott, as the first chairman. At the school, lectures and laboratory work in pottery, mining, chemistry and physics were carried out. During the 1914-1918 war, the Physics Department was merged in the newly established Engineering Department. By 1923 there were 214 students registered in pottery, 143 in mining, 38 for chemistry and metallurgy and 185 for engineering subjects. Preliminary classes were also held at the chief science schools at Longton, Hanley, Burslem and Tunstall.

By 1928 one finds the school referred to as the North Staffordshire Technical College and the Stoke-on-Trent Technical College. Stoke-on-Trent Technical Schools are to be found in the other five towns and the Stoke School is now known as the North Staffordshire Technical College. Additional to the subjects taught in 1928 we now find courses in gas engineering, pharmacy and electrical engineering. Also connected with the college is a fine building department at Cauldon Place, housed in some of the remaining buildings of the famous Cauldon Pottery Works. Since September, 1957, this department had been a separate college under the Stoke-on-Trent Education Authority and is known as the Stoke-on-Trent College of Building, with Mr. C. Knapper, F.R.I.B.A., as principal. It is run independent of the college at Stoke. There is even a North Staffordshire Technical College Catering and Food Technology department, where young people are instructed as chefs and waiters. These pupils cater for and wait on their parents at an annual dinner, the first of which was held in 1957.

By 1939, 900 students were receiving instruction at the North Staffordshire Technical College, but by 1957 this number had increased to 6,500. Extensions are continually being built and a multi-storey College of Ceramics was opened adjacent to the original buildings in College Road in 1957. This six-storey building was erected at a cost of £200,000 on a former cricket ground site lying behind Federation House. It was equipped at a further cost of £100,000. Students obtain practical training in all the processes of pottery making in a completely equipped pottery factory, housed in a one-storey block. The teaching section comprises of ten laboratories and seven class rooms, lecture hall, library and other rooms and is housed in the tall building. The college has been designed by the City Architect's Department and by a process of pre-stressing the steel and concrete foundation, the building would be able to tilt and even right itself without damage if subsidence should occur. This is the first stage in a £1,500,000 technical college development scheme and there is to be a new chemistry and physics block, costing in the region of £160,000, which is now nearing completion, adjoining the new ceramics college in College

Road. Small wonder that a four million sterling budget came before the City Council in March, 1958, of which £2,609,532 had to be found from the rates. Alderman Harold Clowes, O.B.E., J.P., chairman of the City Finance Committee, recommended a general rate of 22s. 6d. in the pound—an increase of 1s.—and after deducting Government grants and Education Committee requirements, represented nearly forty per cent. of the total expenditure. Mr. Clowes reported that in the last five years £3,000,000 had been spent on new educational projects in the City. The estimated running costs of the North Staffordshire Technical College had doubled to about £250,000 a year, over the last five years, and was now about the same as the total revenue expenditure of the University College of North Staffordshire. At the time of writing, the College Governors have recommended the inclusion of a music department and a demonstration and welfare block.

Whilst the original college was built to deal mainly with the needs of the manufacture, in connection with local pottery ware and the tile industry, the present aim is to cover, on a national or international scale, all the branches of ceramics, such as tableware in bone china, porcelain and earthenware, sanitary ware, stone ware, electrical porcelain, glazed tiles, building bricks and all heavy clay products. The college was originally under Dr. J. W. Mellor, lecturer in ceramics, and Mr. J. T. Stobbs, the mining lecturer. Dr. H. W. Webb was principal of the college from 1934 to October, 1958, and was succeeded by Dr. E. R. Patrick, head of the college's engineering department for 21 years. Dr. Webb was born in Boston, Massachusetts, whilst Dr. Patrick was born in Liverpool.

A small college doing useful work is the Elms Technical College, at Howard Place, Shelton. It was first opened in a large private house, still used, called the Elms, on May 30th, 1931, by the Minister of Education, Miss Margaret Bondfield. The Elms was for unemployed adolescents between the ages of sixteen to eighteen. The house, until then a private residence, was bought and adapted for £3,000 and then equipped for another £500. There was room for three hundred to attend daily. Home nursing, physical training, elementary science, writing, history and geography were taught in addition to some practical instruction in wood-work, metal-work, book-binding and gardening. Since 1947, the Elms has been used as the Women's Technical Institute. In September, 1952, it became known as the Elms Technical College and included a nursery training centre and a pre-nursing training centre. Subjects taught include tailoring, upholstering, painting and cookery. Students are prepared for the City and Guilds examinations. Additional class rooms have of course been added, but such is the demand for membership that some classes have to be held in the afternoon for those able to attend. In 1959 there were approximately 1,400 part and full-time students.

To continue the record in sequence we find that the 1914-1918 War practically held up all new projects in local education, but the people of Stoke-on-Trent were becoming increasingly educationally-minded. One of the most outstanding schools in Stoke itself was then, and still is, St. Dominic's High School. Founded in 1857, the school was carried on at the convent. It was mainly for girls, but boys, up to nine years of age, were also admitted to the junior school.

About the year 1920, Cliffville, a fine old Georgian house at Hartshill, standing in

beautiful grounds overlooking the Fowlea Brook Valley, was purchased, partly reconstructed to accommodate the school. Cliffville occupies land that was once part of the demesne of "Cliff Hay," mentioned in "Testa de Nevill," a record of the time of Henry III (1216-1272) subsequently called Castle Cliff, and belonging to the "King's Woods." In later times the pottery works on the other side of the valley and the Shelton Bar Iron works, at Etruria, greatly changed the sylvan outlook.

The mansion was built in 1810 by John Tomlinson, a solicitor, who had settled in Hanley in 1794, at a period when the valley, though still pleasant, had lost most of its woodland. It occupied about 70 acres of ground and was at that time the only freehold estate of any size in the area. Much of it had been granted by John of Gaunt in 1365, during the reign of Edward III, to Hugh Bowyer and William Brampton in fee farm. On the death of Mr. Tomlinson, the house passed to Mr. F. W. Tomlinson, the younger son, whose eldest son, the Reverend John W. Tomlinson, was Rector of Stoke. The daughter of the first Mr. Tomlinson married Major Sir Lovelace Stamer, Bart., of Dublin, and Cliffville came into the possession of the Stamer family. The house was the residence of Bishop Sir Lovelace Stamer when he was Rector of Stoke and it was he who caused the patronage of the living of Stoke to be vested in the Bishop of Lichfield. A new rectory was built when Alderman F. Geen, who was a Mayor of Stoke, bought Cliffville in 1898. He sold a portion of the grounds, with ornamental ponds, for the building of a laundry and also another portion for widening the main road, then only a lane. Thus the Cliffville estate lost some of its size and beauty. Nevertheless it was still a fine estate. It was here that King George V. and Queen Mary, when they visited the Potteries in 1913, took lunch with the Mayor, Mr. F. Geen, and Mayoress, Miss Geen. The Geens continued to live at the stone-built house, together with Alderman Geen's mother who was in her 86th year in 1913.

The house and grounds were acquired by the Catholics for about £5,000 and a further £2,000 was spent on adapting the mansion for school premises. In 1922, there were 300 pupils of which 170 were at the senior school at Cliffville and the remainder at the junior school at the convent. The school had a Board of Governors, on which were representatives of the County Borough of Stoke-on-Trent and the County Council, the former contributing £4 per head, per annum, for children over ten years of age. The school received the usual Government Grants and was subject to Government Inspections. At that time (1922) school fees were six guineas per year for those over ten years of age and four pounds ten shillings for those under that age. Catholics and non-Catholics are admitted to the school and whilst the school is essentially Catholic, many people of other denominations are glad to have their children entered for the school, for parents welcome the religious atmosphere so lacking in some other schools. Today, 1958, the school is filled to capacity.

By 1928 there were 92 elementary schools in the City of Stoke-on-Trent, comprising 55 Council schools, 27 Church of England and 10 Roman Catholic schools, attended by 50,000 children between the ages of five and fourteen years of age. There were also 2,000 students in the secondary schools together with a further 5,000 in the Schools of Art and other special schools.

On June 13th, 1927, Lord Eustace Percy, President of the Board of Education,

laid the foundation stone of a new high school for girls, at Brownhills, on ground that was once the Brownhills Hall estate. As early as 1921, the Higher Education Committee recommended that application be made to the Board of Education for permission to use the Tunstall Victoria Institute for temporary secondary school premises. This school, which was previously known as the Tunstall High School for Girls, was housed in the building of the Tunstall Library and Art school in Station Road. While the new school was being built at Brownhills, several of the classes were transferred to the Brownhills Hall which still stands. Erected at a cost of about £43,000, to accommodate 420 pupils, there have been extensive additions to the school, in the form of extra classrooms, to deal with the increased number of pupils.

Longton High School was founded in 1760 by John Bourne, Town Clerk of Newcastle, whose beneficence concerning education has left its mark on the district. He endowed the original school with the income from a leasehold cottage, situated at Meir Heath. This original endowment brought in £7 per annum, which was to be devoted for the teaching of thirty children of poor parents. The land for the school was given by the Lord of the Manor, the Reverend Obadiah Lane. It was: "A piece of land taken out of the lane, or high road, leading from Stoke to Meir." This piece of land, which was to be held for 999 years, was twenty-five yards long by thirteen in breadth and the annual rent, if lawfully demanded on the first of each month of May, was the payment of a peppercorn.

The school adjoined the St. John's Churchyard and a number of bequests of properties in Lane End were made towards the maintenance of the school from time to time. In 1873 a scheme was proposed, under the Endowed Schools Act of 1869, by which cottages and land belonging to the School Trust could be sold, and a more suitable building erected, capable of accommodating 200 boys. In 1885, the money so raised was expended in the purchase of a site, for the erection of the Longton Endowed School. The original school, near St. John's Church, was pulled down and a stone, bearing the inscription: "This English Charity School was erected and endowed in 1760," was placed in the wall of the porch of a building then occupied by Messrs. Hawley and Jackson, indicating the site of the old school. A further endowment was later obtained, by the Governors, which consisted of an interest in lands at Blythe Bridge, which was held by the Dilhorne and Blythe Marsh Endowed School Governors. The income from this, applicable to Longton High School about the year 1920, varied from £125 to £200. In 1894, considerable additions were made to the building for science and art instruction. At that time there were 70 boys attending the school. The school numbers fell to 56 in 1899, and to as low as 29 in 1900. This meant that the liabilities of the school exceeded the assets and an enquiry was held into the affairs of the school by the Assistant Charity Commissioner. The result was that the Longton Town Council was advised to take over the school and to work it as a mixed school with the Technical Instruction Committee to form the school governing body. Incidentally, this committee, which dealt with the Sutherland Institute, removed the chemistry and art classes from the school to that institution which was more fitted to deal with these subjects at the time. This reorganisation, in 1901, with its improved accommodation, resulted in new life for

the school and the number of pupils rose from 70, in 1902, to 200 in 1912, and to 340 boys and girls in 1922. Of these, 164 were fee-paying pupils and 176 free. Of the total pupils 296 resided in the County Borough of Stoke-on-Trent area, and 44 in the County Council area. The children were at this time, 1920, taught by eighteen full-time and five part-time teachers. Further extensions to this school, in Trentham Road, Longton, were opened in December, 1922. They were two new and separate buildings to the west, in the rear of the main school. These extensions, which enclosed two sides of the quadrangle, were made from four army huts, bought from Prees Camp, near Whitchurch, increasing the accommodation by 200 pupils, at a cost of £5,000. In 1947 the fine new school, equipped with modern classrooms and a swimming bath, was opened at Meir.

Building on this school started in 1940, and during the war the premises were taken over by the Military College of Science. It is possible that the school will be rebuilt, probably on a 17 acre site at Box Lane, Meir. The old premises between Meir and Meir Heath are suitable for use as a secondary modern school, but as extensions are needed if the school is to continue as a high school, it is thought better to rebuild than to adapt.

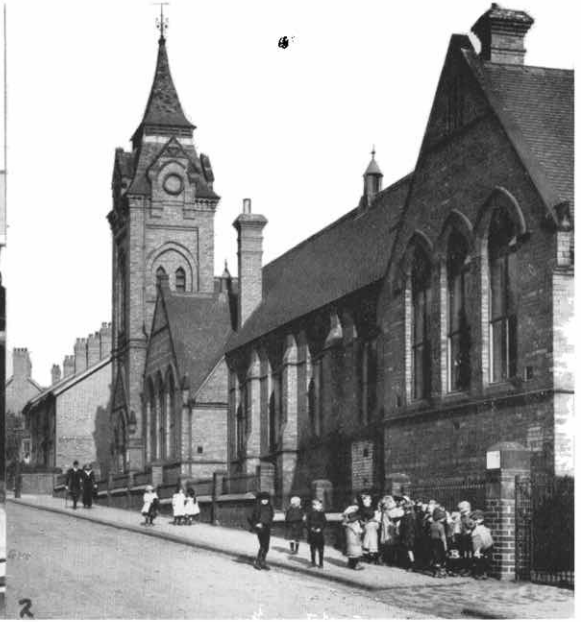
In concluding the subject of Longton High School it will be appropriate to mention the Sutherland Institute, described in 1899, as "Longton's Temple of Learning." This building came into being on the inspiration of the Duke of Sutherland who, as Mayor of that town in 1896, visited the existing library and saw the need for a new and more commodious building. In January of that year the Duke expressed the wish that he should present to the borough a suitable site on which to erect a new free library and technical school and ground was chosen during that month, between Stone Road, Clivedon Terrace and Rosslyn Road. This was to be a considerable advance for Longton whose library had been housed in the old Atheneum building. On February 7th, 1897, the foundation stone was laid by the Prince of Wales and the building which was expected to cost £10,000 was then erected in the Renaissance style in red-brick with stone or terracotta enrichments. On Friday, October 27th, 1899, the building known as the Sutherland Institute, Free Library and School of Art, was completed and opened by the Duke of Sutherland, who brought the American Ambassador and a party of friends from Trentham Hall to the ceremony. The activities of the Institute were many and are in an active, healthy and modern condition at the present time (1958).

The Thistley Hough Girls' High School was built on open country at Penkhull in 1938 at a cost, with equipment, of £63,500. The school had extensive views towards Trentham and Newcastle. The foundation stone of the school was laid in October, 1936. The building was intended to house 525 pupils as all the girls from the Hanley and Longton High Schools were to be transferred to the new school built to the designs of the City Architects' Department. Many of the trees on either side of the main drive to the school were planted at a ceremony to mark the Coronation of King George VI (1937). In the first ten years of its existence, 1,500 girls passed through the school, of whom 33 went to universities. Large extensions, in the form of a block on the Springfields side of the school, have been added which permit an annual increase of 32 girls. By September, 1955, there

were 580 girls at the school which has an important future.

St. Joseph's College, Trent Vale, is an important Roman Catholic school. It had been the intention of the Catholics to built a secondary school for boys, similar to the St. Dominic's Girls' High School. In October, 1932, such a school was started in a fine old house, " High Grove," Trent Vale, opposite to Flash Lane. The school was opened in November of the same year by the Archbishop of Birmingham, Dr. T. Leighton Williams, the patron and founder of the school. The house, which had latterly been the residence of Mr. Charles Elphinstone, was adapted to take about 130 boys as day scholars. It was under the teaching Order of the Christian Brothers of Ireland. The school started with forty-nine boys. In September, 1936, a completely new school, adjoining the house and costing in the region of £24,000, was opened by the Earl of Harrowby—then Lord Lieutenant of Staffordshire. At this time there were 190 boys at the school, but the new buildings permitted the attendance of more than 400. Twenty years later there were nearly six hundred boys at the school, and in 1957, plans were revealed for a £20,000 extension to the college.

After the First World War there was a greater understanding of the type of building suitable for school use and so a number of schools with light, airy class rooms were built—a work that was only halted by the start of the Second World War in 1939. In addition the raising of the school leaving age to fifteen and a general increase in the population, due to an increased birth-rate and to people migrating to the district for employment in the many new industries, resulted in a shortage of school accommodation. By 1953 there were over 47,000 children attending 180 schools in the City of Stoke-on-Trent. Also many schools were old and unable to cope with the requirements of modern times. In some cases it had been possible to transfer the pupils to near-by schools, more suitable. Such an example was Edensor Church of England School which, in 1949, needed substantial repairs. Pupils were transferred to a redundant block at the Cooke Street Schools which was converted into a suitable building. Likewise at Cobridge Church of England School, where much alteration was required, the children were taken to part of the nearby Granville County Primary School. At the Hanley St. John's School, in Lichfield Street, prefabricated classrooms replaced the old building which was to be demolished and which was in such a bad state that the outer walls had to be shored up with baulks of timber. Thus the work of modernising old schools is being done wherever possible to ease a difficult position. Painting, new lighting, new sanitary arrangements, attention to playgrounds, all are part of the improvement plan. In the City of Stoke-on-Trent the average number of pupils per full-time teacher was, in 1953, 31 in primary schools and 21.2 in secondary schools. The great exodus of the town's population to new housing estates, built mainly since the last war (1939-1945) has resulted in some overcrowding in the new schools some of which were built somewhat belatedly on their new sites. The schools that have been built are first class in every way. At all schools the children are cared for in every way possible and the dirty, ill-clad child is indeed a rarity. If the pinched, underfed, dirty, barefooted, ragged child of the nineteenth and early twentieth centuries could now be seen running through the streets of the City of Stoke-on-Trent the populace would stare with incredulity!



1. Two of W. J. Blake's photographs illustrating the progress made in education after the passing of the 1870 Act. A cookery class in a Longton Board School. Electric lighting and gas cooking oven can be seen. Recipes, and indeed all school work, was written on thin slates with long round slate pencils. These slates, in wood frames, were in use in many schools in Stoke-on-Trent until at least 1927. It was the duty of the scholars to carry "pencils" and a small piece of wet rag to erase the writing—but often other methods were used !

2. A typical school of 1900—one of a large number of buildings established by the Local School Boards in the Potteries. This school is now known as Lilleshall Street Primary School, Longton. Such schools, many still in use, provide remarkable contrast with, as example, Willfield County Secondary School of which the official opening of the Second Main Building took place on January 12th, 1960, in the presence of Alderman J. A. Boon, Chairman of the City Education Committee. This fine school, serving the new housing estate at Ubberley and Bentilee, has a magnificent swimming bath and twelve acres of playing fields. First in use in September 1956, the school, with Mr. W. Kay as headmaster, is now one of the most up-to-date in the city.

Before passing from education to other socialogical aspects of life in the Potteries the chapter would be incomplete without recording something of the Ceramic Research Station at Penkhull and the University College of North Staffordshire at Keele.

The Pottery Research Station was started at Beechfields, Queens Road, Penkhull, by the British Pottery Research Association early in February, 1939, and was opened by Lord Falmouth.

The British Refractories Association, under Dr. J. W. Mellor, had been formed in 1920 to study the use of such materials as fireclay, silica and magnesite, used to a great extent in lining blast furnaces, gas retorts and pottery kilns. This laboratory was housed in a small wooden structure in the grounds of the North Staffordshire Technical College. This association later moved to a house at Howard Place, Shelton, next to The Elms, which itself was to become a training centre in 1931. Ultimately, the British Pottery Research Association was formed in 1937. In 1946 it was decided that the two research associations should be joined and this took place in 1948, under the title of The British Ceramic Research Association. The Beechfield House site covered about two acres of ground and was converted into a pottery research station at a cost of £10,000, directed by Dr. Marcus Francis. Towards the end of 1950 the new buildings, which had been started in Queens Road, Penkhull, in 1947, were ready and these were opened by the Duke of Edinburgh on December 12th, 1951. The building has a most dignified frontage, in brick, enriched with octagonal columns. It is under the direction of Dr. A. T. Green.

The founding and the romance of the University College of North Staffordshire must necessarily be recorded in a history that will grow with the passing of the years. When this is done an essential part of its history will be found in the beautiful Keele Hall, to which it may be said the University owes its dignified setting and background. Likewise it is possible that the fine old mansion owes its "life" to the University, for it is more than likely that the Hall, in danger of eventual decay, was saved from demolition by their timely intervention.

Suggestions that North Staffordshire should have its own university were made over half a century ago. One of these was made by the *Evening Sentinel* in 1899. The need was recognised and even the sum of £300,000 was suggested as the figure for endowment. Despite the fact that it was said that the matter was too important to be allowed to drop it was not until 1951 that the idea was realised.

To view the new college in its historical setting we must learn something of the history of Keele Hall and the Keele estate. Keele Hall, although not the original, was built upon the same site. The Sneyd family has been associated with North Staffordshire for over six hundred years, first at Bradwell Hall and then at Keele. Sir William Sneyd, knighted in 1544, distinguished himself in the Scottish wars and was buried in Wolstanton Church. The family of Sneyd, removed from their estates at Bradwell to Keele, towards the end of the sixteenth century. The manor of Keele appears to have been granted to the Knights Templars by King Henry II in 1180. The property passed to the Knights Hospitallers who held Keele until their property was taken from them at the time of the Reformation by King Henry VIII from whom it was purchased by Sir William Sneyd, who continued to live at Bradwell. In 1581, his son, Colonel Ralph Sneyd, moved into the red-sandstone Hall which he had built

in the prevailing Elizabethan architecture. The owner was said to be a most hospitable man who claimed to be delighted with Keele and its villagers for: "All things are neat and jovial plenty keeps—continual festivals by years not weeks." In the difficult times that followed the execution of Charles I (1625-1649) Ralph Sneyd supported the Royalist cause, with the result that the order was given from the Stafford Headquarters of the Parliamentarians to destroy Keele Hall. Colonel Sneyd, who was an adherent to the cause of King Charles, suffered severely for his loyalties and Keele was attacked by Cromwell's troops during the Civil Wars. The Hall was badly damaged but not completely destroyed and was repaired under succeeding owners. One of them was Mr. Walter Sneyd, who erected a new west front which was embattled and adorned with four octagonal turrets. At that time there were two shields over the entrance on the south side. One showed the Arms of Sneyd and the other those of Sneyd impaling Bagot. The old hall was pulled down in 1855, and the present hall was built in 1860 by Mr. Ralph Sneyd to the design of the architect Salvin, the main features being in the Elizabethan style. It was built of a pale red sandstone, relieved with white stone. The Hall was at this time situated in park land which covered 600 acres which were very well wooded and was approached from the village by an avenue of lime and sycamore trees. Today the avenue presents a fine approach. Across the wall, on the entrance side, is the inscription: Has oedes a proavo suo Radulpho Sneyd extructas Anno Domini MDLXXX, restituendas euravit Radulphus Sneyd, A.D. MDCCCLX. The great hall was then furnished in a stately manner and lighted by high windows containing the arms of the family and after dark by massive chandeliers of old Italian workmanship with innumerable candles. Much of the panelling is in walnut. Near to the library was a room from which a secret exit, leading to the floor above, was made in the form of a door disguised by being filled in with "book covers" suggesting a part of the library. The dining room at the hall was remarkable for its ceiling, its wall panels of walnut, inlaid with circassin wood, and an Aubusson tapestry made specially for the room. The magnificent carving above the fireplace and elsewhere was the work of Rogers.

The Reverend Walter Sneyd, M.A., F.S.A., born in 1809 and who succeeded his brother Ralph, the builder of the Hall, converted an old quarry into a fernery, on the bank of which he erected two arches, removed, with other relics (see also page 295), from Hulton Abbey. Such were the associations of Keele Hall with the ancient family of Sneyd which had continued during six centuries in direct male descent from Henry de Sneyde, who lived in the reign of King Edward I.

Keele and the Grand Duke Michael

In more recent times, Keele Hall has been associated with royalty when the Grand Duke Michael of Russia, who took the Hall on a ten year lease in 1900, came to reside in Keele in 1901. At the beginning of the century it was still a well-wooded estate and was "a picture" both in summer and winter. Keele, declared the Grand Duke, was the Switzerland of England, a remark occasioned by the beauty of the landscape under the winter snow. Carriages were still in full use and the motor car had not as yet troubled the highways to any extent. It would then make

a truly old-world scene as the Grand Duke and members of his family drove to Keele Church and along the by-ways of Keele in their carriage. The Duke however did not scorn the early motor car. A twin-cylinder Argyle, E.H. 12, one of the first dozen local registrations, was owned by a Captain Vincent of Keele. This car was used by the Grand Duke Michael until he bought a 14 h.p. Dennis in 1901 in which King Edward VII rode during one of his visits to Keele in July of that year.

The Grand Duke was known for his extreme kindness and his love for music. He would pass the time of day and stop to chat with anyone he met on the estate or in the village, an informality which won him many friends. He was ever-ready to listen to singing or music and was the composer of several songs whilst at Keele. Some of these he wrote for the children of St. John's Church of England School, Keele, in which he took an active interest, and would visit the school to hear his little compositions sung. In the grounds at Keele Hall the Grand Duke and Countess Torby had a small golf course of 18 holes " and there were endless matches for them and their friends and some for the staff." Croquet was also played a great deal and the ladies looked most elegant in their " long dresses, elaborate coiffures, and large shady hats." The Rajah of Putacota was a frequent visitor in the summer. Lady Randolph Churchill was also a frequent visitor to Keele Hall as a guest of the Grand Duke and Countess Torby. On one occasion she brought with her her son Winston. He was " red-haired " and " rather blunt " recounts Baroness De Stoeckl for she declared: " I remember one morning coming into the large drawing room at Keele and Winston Churchill, quite a young man, was lying on the sofa with his legs over the arm. He simply nodded good morning and never moved from that position. I was shocked beyond words," said Baroness Stoeckl.

The arrival of King Edward VII at Keele was an event to be remembered—as was his stay in July, 1901, when he spent a long week-end at the Hall to which a large party had been invited. It was a special honour as it was the first private visit the King made since his accession to the Throne of England. The King arrived on July 12th. The Grand Duke Michael drove to the station in a landau followed by three other carriage, all with beautifully groomed horses. Crowds lined the road to the Hall. The King descended from the coach and was met by the Countess Torby. Many servants were at Keele to attend the King. They were from Mecklenbourg and, tall of stature, were dressed in gala uniforms. After tea a croquet match was played. " The King hated losing as did the Grand Duke. They had a wager of £1." With a little conniving—and the Grand Duke was furious—it was arranged that the King should win. The scene in the Hall that night was magnificent. The wall-lights and candelabras, with their tall waxen candles, illuminated the splendid scene and the solid silver service had been laid out by Mr. Ralph Sneyd's butler who had been sent to open the strong room. On the second evening the whole of the main room was " lined with gold plate, brackets, service, etc." Baroness Stoeckl tells how the King admired the Sneyd collection of beautiful snuff boxes. The King had said jokingly, " Well, ladies, take your choice." The butler turned " deadly pale," dropped the tray on which was part of the collection, and dashed out of the room. Followed, he declared he was going to the post office to inform Mr. Sneyd that: " His Majesty is giving away the boxes to the ladies." Only after much persuasion

was he prevented and brought back to the drawing-room to see for himself that "not one box had gone." The King departed on Monday, July 15th, 1901, for London.

It was said that the arrival and departure of the visitors' carriages attracted a considerable number of spectators when the Garnd Duke and his party visited the *Sentinel* offices in Hanley in August, 1903. It was His Imperial Highness, the Grand Duke Michael, who was also Lord High Steward of Newcastle, who unveiled the Victoria Statue at Newcastle, erected to commemorate the Coronation of Edward VII. The Grand Duke, his wife the Countess de Torby, and his family were respected and loved by the people of Keele, indeed to such an extent that in November, 1906, presentations were made to them by the parishioners. The family did not spend all of each year at Keele, but were usually in residence during the summer months and again for Christmas. The family frequently visited Hanley and Stoke and on one occasion the Countess Torby opened the Hanley Park Fête.

In 1910 some 230 silver and gold medals were struck for the Grand Duke. About the size of a half-crown they bore, on one side, the inscription: From the Grand Duke Michael and Countess Torby, and on the other side their monogram with Keele Hall, 1900-1910. These medals were presented to all the children who had passed through the school during the chairmanship of the Grand Duke and to the church choristers and bell-ringers. The rector and wardens received gold medals.

On Tuesday, March 1st, 1910, the Grand Duke, the Countess, their children Countesses Zia and Nada and Count Michael left Keele Hall for the last time by way of Stoke Station for their new home, Ken Wood, Hampstead, London. Keele, it might be said, was never afterwards the same. About the year 1918 some of the furniture was sold. On July 3rd, 4th, 5th, 9th and 10th, 1928, a final sale was held at the Hall on the order of Colonel Ralph Sneyd. The magnificent English, French and Italian furniture, carpets, paintings and pottery was sold without reserve. For quite a number of years the Hall was silent and deserted. During the second World War the Hall was occupied by the Allied servicemen of many nations and during this time a fire did much damage to the roof. The Hall remained empty for a time but negotiations for a possible sale were opened in September, 1947, and it was sold by Colonel Ralph Sneyd to local authorities, the main of which was Stoke-on-Trent, in 1949. It was on this fine estate that the University College of North Staffordshire was founded by the grant of a Charter of Incorporation, on August 11th, 1949. This Charter, sponsored by the Universities of Oxford, Birmingham and Manchester, empowered the college to confer the degree of Bachelor of Arts, with honours. The college site at Keele covers an area of about 200 acres and the total of the college campus about 500 acres. The Hall, which is used as a general administrative and teaching block, was extensively restored by local labour under the direction of the City Architect, Mr. J. R. Piggott, and has included a new main staircase, added in the east wing. The original doorway to the Hall now leads to a new library. Many temporary buildings were erected for housing the students, but year by year improvements and fine new blocks are added. On Tuesday, April 17th, 1951, the Queen opened the new University after being received by the senior Vice-President of the College, Alderman the Reverend Thomas Horwood, Vicar of Etruria, Stoke-on-Trent, who was also Chairman of its Council, and by the Principal, Lord Lindsay

of Birker. The initial cost of the college was £350,000. In October, 1950, the first 150 students to this university—which is the only entirely residential one in the county—started their four year course. The first of these to be personally welcomed by Lord Lindsay was K. B. Ellis, a former pupil of Newcastle High School, who went to study science. The motto of the college is that of the Sneyd family recorded over the doorway: " Thanke God for all."

In October, 1951, the Keele estate was finally broken up when four and a half thousand acres were put up for auction. The sale was necessary to meet death duties of Colonel Ralph Sneyd, who died on Christmas Day, 1949. It was split into 171 lots and included the greater part of the village of Keele. The sale was held in the Municipal Hall, Newcastle. The estate included 31 farms, as well as properties in Hanley, Tunstall and outlying districts. So the direct link with the Sneyd family from the time of Henry de Sneyde of Sneyde and Tunstall, who lived in 1310 and married the daughter of Nicholas de Tunstall, was finally broken.

The family had been mainly responsible for the building of Knutton and Silverdale churches and schools. Ralph Sneyd was himself directly responsible for the erection of Keele church and schools. This church, which is dedicated to St. John the Baptist, was rebuilt in the latter half of the nineteenth century in Gothic style. On erection one of the bells bore the date 1747.

The first Graduation Day of the new university took place on July 3rd, 1954, Sir John Lennard-Jones being the Principal at this time following the death of Lord Lindsay of Birker. It was at this ceremony that the Honorary B.A. Degree of the University was conferred upon 79-year-old Alderman, the Reverend T. Horwood, Chairman and "father" of the North Staffordshire University Council. Alderman Horwood had already received, during the previous year, the Honorary Degree of M.A., of the Manchester University. This, together with the M.A. of Cambridge, an application for which he did not make until over forty years after his qualifying B.A., in 1908, at Cambridge, was indeed the height of his success.

It will not be doubted that the success of this " bold experiment in education " was assured from the onset, but the death of the first Principal of the University, so closely followed by that of its second, threw a shadow over an otherwise bright horizon. The third Principal, Sir George Barnes, a former Director of B.B.C. television, was appointed on November 1st, 1955, one year after the death of his predecessor, Sir John Lennard-Jones. In March, 1956, H.R.H. Princess Margaret accepted an invitation to become President of the University in succession to the Earl of Harrowby, the first President who retired from this office at the age of 92 in 1956.

In an age when some form of educational qualification is demanded in all walks of life, it will be expected that the number of schools needed to further this education will be ever increasing and that the cost of these services will rise proportionately. There are today, 1958, within the Stoke-on-Trent City boundary, a total of 186 schools consisting of 6 secondary grammar schools, 139 primary schools (infants and juniors), 39 secondary modern schools and 2 secondary technical schools. In addition there are 14 nursery schools. All these schools come under the Stoke-on-Trent Education Department. The approximate cost of educating pupils at the 178 primary

and secondary modern schools in the city today steadily rises with the general increase in the cost of living. These costs, exclusive of school meals and milk are as follows:—

Primary Schools	1955-6	£36 per pupil per year
Secondary Schools	„	£63 „ „ „ „
Primary Schools	1956-7	£41 „ „ „ „
Secondary Schools	„	£71 „ „ „ „
Primary Schools	1957-8	£46 „ „ „ „
Secondary Schools	„	£77 „ „ „ „

It is expected that the figure for 1958-9 will be £49 and £78 respectively.

CHAPTER 9.

Health

The brief title of "Health" covers, in the towns of Stoke-on-Trent, an era of incredible squalor in living, sanitary and housing conditions for the population, bound up with the struggles of the first hospitals against disease leading to life in the new housing estates and to vastly improved conditions of the present time.

That the Potteries once consisted of a number of villages on the edge of the moorland with here and there a squire's mansion and half-timbered cottages thatched with ling and straw, will not be doubted. In summer the scene must indeed have been lovely and the smoke rising idly from the few pottery hovels enhanced rather than marred the peaceful scene, and the 4,000 inhabitants in 1738 went about their work on the farms, small potteries and brick kilns in a leisurely manner.

All this was to change, and less than one hundred years later, in 1831, the population had increased to almost 52,000 and by 1851 to over 84,000.

Up to the year 1848 the poor were largely in the care of the Parish. Indeed this had been so from the time of Queen Elizabeth. For this a rate was levied by the vestry and was passed on to the poor by the overseers under the supervision of the Justices. This succeeded tolerably well until the coming of the Industrial Revolution when the Poor Law Reform Act of 1834 brought the whole system of poor relief under one control. It abolished the parish system for relief of the poor and inaugurated three Poor Law Commissioners in the capital whose duty it was to combine parishes into unions and to make sure that Boards of Guardians were elected by the local ratepayers of each union. The Stoke parish was made into one union and covered the districts of Stoke, Hanley, Shelton, Fenton and Longton, whilst Burslem and Wolstanton parishes combined into a union which covered Tunstall and the remainder of the areas in the Potteries. These Boards of Guardians did much to relieve the poor and were empowered also to attend, as far as they could, to the drainage and general improvement of the areas they covered.

As already related in other chapters, Acts of Parliament and Local Boards of Health, in the latter half of the nineteenth century, did good work as far as their powers and finances permitted in dealing with the large number of problems occasioned by these increases in the population. The feeding of the rapidly growing population was of major importance and beef and bread was a staple diet for the workers of the 160 pottery works, the 40 brick and tile works, and those employed at the many flourishing collieries and iron works in the district in 1849, together with farming and a host of small traders. At this time meat cost from four-pence to seven-pence per pound, and flour, for baking bread, two and sixpence a stone. In the November of that year a fortnightly cattle market, occasioned by the increased wants of the district, had been in operation for one year in Hanley. During that year 2,500 cattle, 7,640 sheep and a large number of pigs were offered for sale. At the present time, 1958, over 90,000 animals are slaughtered yearly in the city for human consumption. The Chief

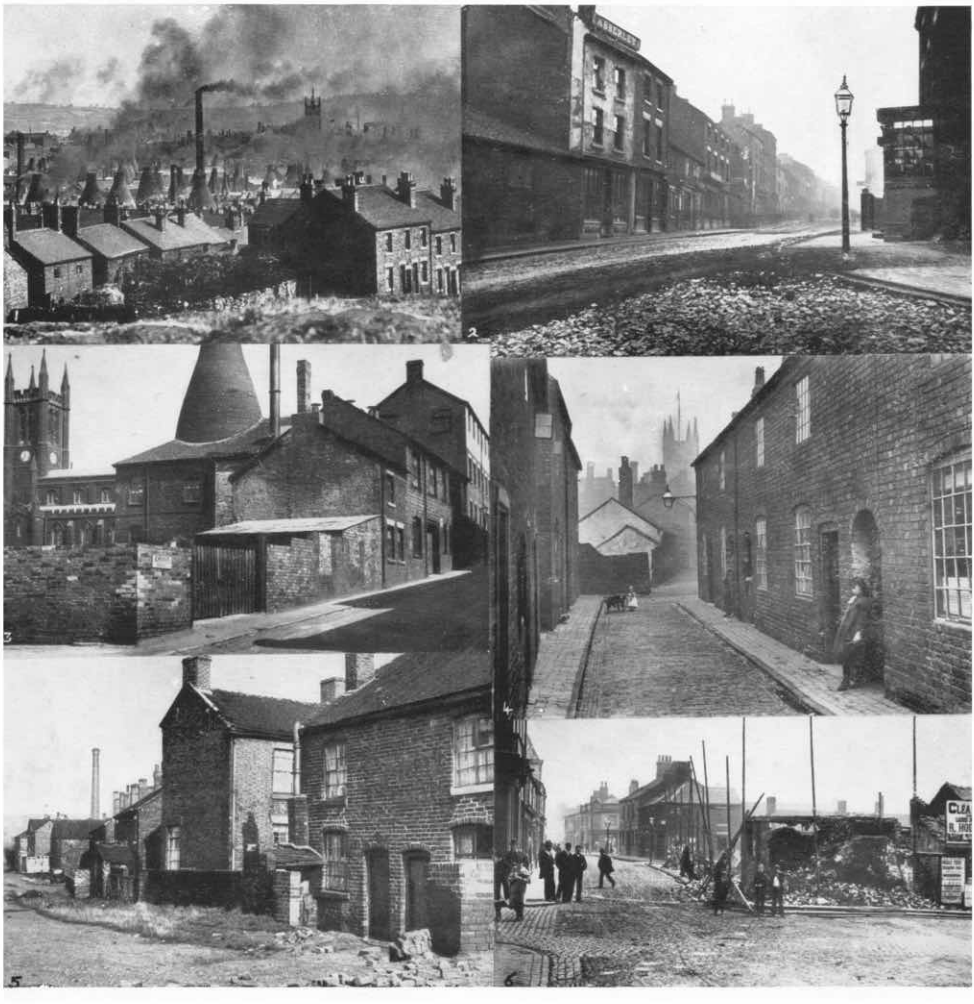
Bailiff of Hanley, Mr. Timothy Dimmock, declared at a celebration dinner, held at the Saracens Head Hotel, Hanley (which stood on the site of the present telephone office buildings on Crown Bank): " Is it reasonable that they shall go out in search of food . . . or shall it be brought to them? They have not now to wander about the country in search of fat beasts." In 1854, at the recently established fortnightly cattle market, held on Tuesdays at Stoke, fat stock of good quality was disposed of to butchers and dealers at the average price for beef of 6½d. to 7d. a pound and of mutton 7½d. to 8d. a pound.

But all was not well, at this date 1854, with the health of the Potteries folk. In Hanley, Mr. Lee of the General Board of Health in London (formed in 1848) had criticised severely the sanitary arangements of the town and roused the anger of an influential part of the population (who did not want to apply the Public Health Act in Hanley) to such an extent that the Government withdrew its plans for the formation of a Local Board of Health in Hanley. The *Sentinel* newspaper declared that: " Hanley has been struck out of the General Health of Towns Act . . . Hanley must mend its ways. There will never be peace in Hanley until . . . Highway Boards and Market Trusts . . . lose their jealousies and terminate their odious feuds."

Not until the year 1858 did Hanley, together with Longton, belatedly become Board of Health districts. Local Boards could also be established voluntarily, or in any area where the average death-rate in the past 7 years had been more than 23 per 1,000. The towns of the Potteries had little difficulty in qualifying. Sanitary conditions were such that disease was rampant. In 1868, ten years after Hanley became a Board of Health district, a useful record of the state of the health of the people in Tunstall was put on record by the Medical Officer. Issued in March, 1868, it was the fourth annual statement on that district and was typical of the Potteries. The report stated that there was a good deal of smallpox, scarlatina and fever, accompanied by a very high rate of mortality among young children, of 261 infants under the age of five years, out of the total of 402 deaths for the year. The total birth rate for Tunstall in the year ending March, 1868, was 584, and the death rate 402. One wonders whether cancer had been fully recognised and diagnosed at this period for only one death was attributed to this disease. (By comparison, in 1958, there were nearly 550 deaths from cancer in the City of Stoke-on-Trent.) By far the largest proportion was attributed to " affections " of the chest from which 112 died, followed by convulsions and diseases of the brain numbering 70, with scarlatina 61, smallpox 6, measles 29 and fever 12. (In 1956, deaths from smallpox, scarlet fever and measles in Stoke-on-Trent with its vastly greater population were nil!)

Efforts to improve housing conditions, which form such a vital part in the improvement of health, were not always popular as when in October, 1869, the Hanley Town Council were proposing to pass a large number of by-laws to bring about just such improvements. Mention of several will be of interest:—

No gable was to be of less than 9 inches thick, unless built against another, nor inside walls less than 4½ inches thick. Every new house was to have not less than 150 square feet of open yard. No house was to have less than 500 square feet area of all rooms. No bedroom was to be less than 10 feet by 10 feet and no room less than 9 feet high, and all windows were to be one-sixth the size of the floor of the



For information see overleaf

1. A W. J. Blake study of Longton about 1895. It was a true picture—without exaggeration—of the smoke problem in the Potteries. In this picture alone 65 bottle-ovens could be counted.

2. An extraordinary photograph of the top of Market Street and the turn into Commerce Street, Longton, about 1875. The road was a mass of mud and broken "saggars" in the foreground.

3. Chelson Street, Longton in 1957. In the left-hand corner, until recently, stood "thirteen houses with one lavatory and one tap," said an inhabitant.

4. Mr. Blake's picture of a street near St. James' Church, Longton, about 1890.

5. Desolation. Slum property at Edensor, Longton, in 1955. Behind these houses the "bull-dozer" was pushing the feeble, tottering property to the ground, clearing a vast area. It was the end of an era for Edensor. Much of the old property has or is being replaced by council houses and today, within the city boundaries about 84,000 people live in these corporation houses situated on 123 housing estates. The first council houses were built at Trent Vale, in 1921, by the Stoke-on-Trent Corporation.

6. Who would recognise this as the junction of Marsh Street and Trinity Street, Hanley, as it was in 1899? Beyond, on the right, is Parker Street and Clough Street. Marsh Street, especially Marsh Street North, was at this period a very rough road. By the New Hall Pottery (sold in 1959 and now in the early stages of demolition) the road was narrow with a surface of rubble, soil and clay. On the east side, by the wall of the pottery were "flags," or cobbles, to take cart wheels between which was a deep rut made by the cart horses. It was not unusual for the horses to stumble and for the white Potters' slip to pour from the large barrels on to the road.

room, and the opening one-twelfth. Rule numbers 53 and 54 stated " All buildings, old and new, must be under drained (besides the sewer) if the the Burough Surveyor thinks fit. Contractors and other offenders were to be liable to a fine of 40s. day after day for an indefinite period." The new rules ran into at least 75 separate articles and one wonders how many were carried out. Unpopular as such reforms were the unsanitary nature of the average small house in the district called for strong action if disease and death were to be lessened. In the month of June, 1871, there were over 200 cases of smallpox under treatment in the Longton part of Stoke parish alone, and almost every sufferer lived in the small working-class homes to which the rules mentioned would, in the main, apply. Frantic efforts were made to stem the epidemic—the Town Councils even issuing brushes and whitewash to assist in the cleansing of these houses!

About this time Hanley was the most densely populated part of the Potteries, closely followed by Tunstall. By 1898 there were 31 people per acre in Hanley and 19 in Tunstall whilst Burslem, whose acreage was the largest of the towns, contained only 12 people per acre with Fenton 11 and Longton 16.

To appreciate the excellent, if expensive, services that we in the City of Stoke-on-Trent enjoy today one must probe fairly extensively into the amazing and shocking conditions that were part of the everyday life in the six towns of Stoke-upon-Trent in the eighteen-nineties. Small wonder that Arnold Bennett found in these settings in his native district, ideal material for his wonderfully detailed and true to life stories. It was an age in which the people of the district, born in an industrial revolution, were still bogged down in poverty and squalor. Semi-educated, the people, in the main, lived in tumble-down houses too small for the large families which they, in their ignorance, brought into the world. These houses were set in narrow streets in which the sunshine could linger but briefly, but down which the dense black smoke from the pottery kilns swept, urged on by gusts of wind, obliterating that brief sunshine only to blend, sooner or later, with the grey twilight of the winter or summer evening. Even the night was made darker by this pall of smoke which indirectly speeded on the funeral pall.

Child neglect, pauperism, poverty in all its phases, disease, drunkenness, vice, filthy houses, cesspools and ill-lit streets in which violence was frequent, all seemed to fester in a final orgy of squalor towards the end of the nineteenth century, with the beginning of a new era of understanding and government with the Federation of the six towns to form Stoke-on-Trent in 1910. Let us then study some aspects of life in the Potteries in the eighteen-nineties.

Child neglect was commonplace. In a house, 24, Princess Street, Hanley (renamed Sceptre Street in 1955 and now a street of pre-fabricated houses, between Broad Street and Cannon Street), lived three families, not all of them lawfully married. The house was typical of the average small house to be found in the district and consisted of three rooms and a scullery. Two of these were bedrooms —one measuring 8ft. by 8ft. by 9ft. high. In one of these rooms, husband, wife, grown-up son and twelve-year-old daugher slept in one bed. In the other a man, a woman, three boys and a girl all under sixteen years of age, slept, making a total of ten people. The state of the house and children cannot easily be pictured. In

the living room were two tables, three chairs and a couch. The bedrooms were in a "filthy and offensive" condition. The mattresses and flock bed were swarming with vermin, also the sheets and counterpane, which were filthy and "alive." There was plenty of food in the house, but the children were in a shocking and neglected state. The twelve-year-old girl was well fed, but her head was very dirty and swarming with lice. Her body was almost black with dirt as were her clothes, and her head was very sore and in need of attention. All the other children were in much the same condition. A visiting N.S.P.C.C. Inspector, calling at the house was treated with contempt and laughter. The men's wages, as pottery workers, were 25s. and 15s. per week. Out of this one of the men paid board for himself, the woman and four children at a total rate of 1s. 6d. a week! Such were the dreadful conditions that one boy, aged thirteen years, refused to stay at home and slept out each night. One child from each family had been in court previously charged with theft and one of the fathers had been in prison for child neglect. One year later the same inspector went to the Shelton schools and found several of the same children, one a six-and-a-half-year-old girl who was "thin, very filthy and her head and body infested with vermin." Three of the boys, one of them the thirteen-year-old boy who had slept out of doors, were taken to Dr. Reid, who found that their bodies were completely covered with a parasitic skin eruption. Their heads were also covered with patches of congealed discharges due to parasitic irritation. The stockings of the 13-year-old boy stuck with puss, could not be removed without causing bleeding. The parents were sent to prison—both to do hard labour.

In Longton, in 1899, a father—a slipmaker in a pottery—was sent to gaol for a third time for neglecting his family. The house, 8 Spring Hill, Normacot Road, was described as in an appalling state. The inspector found the wife and two children, aged four and two, with one child sitting on a sack in a corner of one room. The furniture consisted of two chairs and a box on some bricks which served as a table. The children were almost without clothing, the girl having only a skirt. The only other furnishings were two old dirty mattresses lying on the floor. It was near Christmas and the children were blue with cold. The wife said that drink was the cause. Her husband never brought home more than 10s. a week, the remainder of his wages being spent on drink. One week whilst they had a child lying dead in the house he only brought home 3s. 4d. for the week with which to pay the burial expenses. The father, who declared he was prepared to "rot in gaol," was sent to Stafford prison for six months.

Cases such as these were by no means rare and all must then share the blame, including the Town Councils. Ignorance, poverty, lust, drunkenness and despair were all contributory factors—and in particular, drunkenness. Consider a case in Hanley in the eighteen-nineties, after dark in the dubious area of what is now Marsh Street North, where a drunken brawl took place outside the Black Horse public-house. The road was blocked by a milling crowd on the border of which the whinny of the frightened cab and cart horses could be heard. For hours fighting continued with life and property in danger and it seemed no one to enforce the law. In the end it was left to a civilian to enforce it, in the person of the wife of the Reverend F. E. Waters, Vicar of Hope Church, Hanley, who walked boldly into

the thick of the fight and eventually brought the disturbance to a halt. Grim though the case was it has its humorous aspect for it was publicly suggested that Mr. Windle, the Police Superintendent, should be given a rest: "He deserves it after working so hard, firing his own chimney and summoning himself, and Mrs. Waters be asked to undertake police arrangements during the Wakes."

One of the greatest enemies of the health of the people of the Six Towns was to be found in the lack of proper sanitation described in the chapter dealing with the sewerage and sewage of the Potteries.

At the turn of the nineteenth century, federation of the towns had not yet taken place and each town had its own health problems of which sanitation was one of the most difficult and pressing need. Old records of the Boards of Health, Corporation and other documents show something of these conditions. Hanley, whose population about the year 1900 was in the region of 61,000, had only 1,600 water closets with flushing cisterns, but there were over 4,000 cottage pans, 1,200 of the Duckett and Fowler type. In addition there were 1,606 privy cesspools of the old fashioned type and 2,750 Rochdale pails (pans that were emptied each week). In 1890 there were at least 200 houses in Hanley through whose front door all refuse—even the excretia from the pans and cesspools—had to be carried out, but by 1900 this was said to have been completely eliminated. The death rate in Hanley was high. In 1896 over 21 per 1,000 of the population died the result of measles, scarlet fever, typhoid and diphtheria in this order. It was in 1897 that the Hanley Corporation decided to make a complete change over from the privy sanitary system to the water-carriage system—a work which took many years to complete. It was said that at this time Burslem compared favourably with the other towns in these matters, although, to the annoyance of the population, the night-soil carts operated during the day time. Here 4,500 privies dealt with the excretia of Burslem's population of well over 35,000 living in about 8,000 houses. Only 25 of the privies were attached to cesspools which were claimed to be less offensive than the older ones which had a cesspool to each one.

Burslem, in 1897, possessed 420 water-closets equipped with complete flushing cisterns; 758 hand-flushers, 1,880 automatic slop-water closets and 13 Rochdale pails. In 1894 there were still 60 houses through whose front doors all matter had to be carried. Burslem however had its own destructor which disposed of the towns other refuse.

The situation in Stoke was somewhat more favourable in so much as the death-rate was the lowest in all the six towns despite its population of 30,456 in 1901. There were however over 4,200 privies and cesspools in the borough in 1897, and the bulk of the night-soil from the town was taken to Hartshill, Oakhill and Basford and there deposited to offend these localities with its stench.

Fenton at this same period had a population of 21,000. Here old privies were being converted at the rate of about 17 a month, the work having been first started in March, 1895. By March, 1897, 600 had been converted to water-closets and of these 260 were flushed by cisterns—the remainder being slop-closets. This figure left a balance of almost 2,000 old type lavatories. Fenton was fortunate in having a sewage works which worked on the duplicate system—the water from the streets

being conveyed into local water courses whilst the actual sewer dealt with the sewage matter. The night-soil was taken to Fenton Park where it was used for agricultural purposes.

At nearby Longton, with a population of over 34,000, the old privies were being converted to the water-closet system at approximately 50 a month, yet at this time Longton was in the throes of a diphtheria epidemic and irrespective of population was second only to London by comparison, there being 36 cases in one week alone, in October, 1897.

In the northern end of the Six Towns, Tunstall was dealing effectively with its sewage and was about to borrow money to build a new works. Tunstall then had a population of over 17,000, who lived in about 3,200 houses, over a third of which possessed water closets. Conversions were averaging between 50 and 60 a year where, as in 1881, a water-closet in the town was considered very rare and something to be visited. There were places in the six towns where one privy had to suffice for a row of houses. Occasionally these were found in Longton and Burslem. Tunstall was free of this at this date and each house had a privy of some description—only about eight of which had to have the night-soil carried through the front doors to the waiting cart and horse. There were however a number of rows of houses, back to back, between which ran narrow passages scarcely wide enough to walk through without touching the walls. These passages comprised, in the main, the walls of the privies at the end of the yards through which at intervals the filth seeped, adding to the smell and dirt which accumulated. This is but a brief survey of sanitary conditions in the Potteries at the close of the century.

A plentyful supply of water is the keynote to health and to the efficient functioning of sewerage. Continual improvements by the Staffordshire Potteries Water Board make this possible. Too late to be included in the chapter dealing with the water supply is the fact that on May 26th, 1959, Alderman William Evanson, the Chairman of the Board and a former Mayor of Newcastle, cut the first sod of a £3,500,000 scheme to enlarge the Tittesworth Reservoir. The ceremony took place by the existing reservoir and the spade was that which was used by the first Chairman of the original Waterworks Company, Mr. William Davenport, when in August, 1847, he inaugurated the work on the reservoirs in the Deep Hayes Valley, near Leek. The flooding of the 130 acres of the valley to the village of Meerbrook will necessitate the demolition of property and Waterhouse Farm will be submerged. It should result in the board's water supplies being increased by about 5,000,000 gallons a day.

Today in the City of Stoke-on-Trent, which covers an area of over thirty square miles, bad sewerage is of the past. The latest annual report of Dr. J. S. Hamilton, Medical Officer of Health for the city, tells us that the population, 1951 Census, of Stoke-on-Trent was 275,115, split up as follows: Stoke, 45,245; Fenton, 20,631; Longton, 53,062; Hanley, 51,126; Burslem, 36,631; and Tunstall, 25,486.

The water closets and sanitation of the Potteries is nearing perfection, although conversions to water-closets still takes place and 222 were made in 1956. The average cost per conversion was £37 11s. 0d. Over 16,300 sanitary inspections were made in the district and it is interesting to note that these include even canal

boats of which 31 boats were inspected. These boats were occupied by 76 persons in the relation of 25 males, 16 females and 35 children. Of these 35 children, 14 boys and 10 girls were over five years of age, that is, of school age. The boats are well cared for and when inspected only three infringements of rules were found. At the present time fifty canal boats are known to be working. The Potteries is not entirely free from household pests such as bed-bugs, cockroaches, steam flies and other insects. In 1956 disinfection of the house, furniture or clothes was carried out in 738 private houses which were treated in 809 visits by trained operators with D.D.T. and fumigants in addition to 191 council houses and the premises of 68 factories. Schools, nurseries, hospital wards are also treated where necessary. It was estimated that over 16,000 rats and mice were killed during the year.

No longer is the ancient trade of the tallow-chandler (making of candles from animal fat) to be found in the district with its offensive smell, but inspection is made of other offensive trades which are now carried out such as those of the bone burners, tripe boilers, gut scrapers, fat melters, hide and skin dealers and rag and bone merchants.

A final glimpse of conditions in Longton in 1899 will complete and emphasize the record of progress. At this time the Medical Officer of Health for Longton was Dr. W. J. Dawes. In the 34th annual report on the sanitary conditions of the Borough of Longton, Dr. Dawes said, "Privy cesspools and ashpits are not emptied frequently enough" and that he was fearful of the great amount of diphtheria in Normacot and Florence due to those cesspools, drains, and the gases from both. " The cesspools," declared Dr. Dawes, "with their ill-fitted stone tops are placed at the backs of houses in the footpaths over which children are often seen playing." He adds, "Diphtheria was notified over 550 times during the year that the schools in Longton were closed from October 13th, 1897, to January 3rd, 1898, only to be closed again on January 19th, as diphtheria cases became rapidly more numerous, and not opened again until April 18th, 1898. Stop playing at sanitation and making matters on the surface to please the eye," urged Dr. Dawes, backing this statement with the fact that there had been 800 notified cases of infectious diseases during the year 1898. He said, "Zymotic diseases caused 220 deaths in Longton alone in 1898." Compare this figure with that from Dr. J. S. Hamilton's health report of 1956 for the whole of the City of Stoke-on-Trent when the number of deaths from all the principal Zymotic diseases was only two!

HOUSING

We may now consider the vital matter of housing the people and the need for lodging houses. Today there is only one registered Common Lodging House in the city—the Salvation Army Hostel for men at Stoke—with accommodation for 109 beds. There are of course still many private lodging houses, where people may board with the occupier or owner, with the majority of houses clean and highly respectable. It cannot be doubted however that there are still to be found (and from personal experience) houses in which one feels very dubious about placing ones hat, brim downwards, on any of the furniture and where the smell is reminiscent of the late nineteenth-century lodging houses on which a few comments will not be out of place.

Records show that the lodging houses of that date were in the main of a very low nature. Known as "doss houses" they abounded in the district. Such houses were even at that date (1890—1900) registered and subjected to periodical inspections. In Hanley there were a number to be found, registered to take anything from 10 to 90 lodgers. One room was usually used as a communal cook house and living room. The occupants were mainly of the "tramp loafer and cadger classes." Charges were 6d. for a single bed or 4d. for half a double bed. To quote one account, "The haze of smoke from innumerable clay pipes filled the air in the large room in which the rays from the paraffin lamp, on the chimney-piece, feebly illuminated the scene. This, coupled with the smell of cooking and the unwashed men and women and that from wet clothes drying on the line, was an experience." At eleven-o'clock most of the inmates went to bed urged on by the landlady and it was usually at this time that the police would sometimes enter to see if any of the "wanteds" were there. It was said that here they would stay often until "opening time." Despite the grimness of the doss house the accommodation afforded in a registered lodging-house was said to be "something almost to be envied" to conditions of housing in the Potteries at the turn of the century.

Very little is recorded of the very early dwellings in the area of the villages and towns known as the Potteries. It is reasonable to suppose that if humble, and the occupants poor, the cottages, many of them Elizabethan, were clean and pleasant, the winds from the moorlands sweeping gently or in gusts according to the seasons over them. The squalor, smells and dirt of poverty that the industrial revolution was to bring had then cast no gloom over the villages. Only the smoke from the few early pottery hovels gave a hint of the future.

With the rapid growth of the pottery industry with its needs of coal and the later development of iron and steel industries houses were built for the workers. By the standards of the time they were mean, but at least clean. The passing of time however changed this into an overcrowded mass of buildings, completely inadequate to the needs of the ever increasing population. Houses with their three or four rooms were accommodating families of a number for which they were not intended. These houses, and the few to be built, could not keep pace with the growth of population of the district which rose from 4,000 in 1738 to 63,000 in 1838 and to 208,875 by 1901. So it was that in the mid-nineteenth century slums could be found in most of the Pottery towns which beggar description. One of the worst of these was in Burslem, aptly known as "Th' Hell Hole." An old potter who knew the place records this section of the town as a name that "amazes us in its description of truthfulness—its directness and grimness could not have been truer . . . . In squalor, in wretchedness, in dilapidation of cottages, in half-starved and half-dressed women and children, in the number of idle drunken men, it was as terribly dismal as its name would suggest." Broken pavements, open drains, disease, immorality and obscenity were its normal conditions. Its crowded houses stank—yet within a quarter of a mile on the "Jenkins," the sails of an old windmill were turning in the pure breezes coming in from the Leek moorlands. This then was a glimpse of a Potteries slum of 1845. "I should think," declared the old potter, "that for insanitariness and immorality, it could not have been surpassed in all England, this was a slum in the town carrying

the proud name of the 'Mother of the Potteries'." What a paradox! Small wonder that such names as Goldenhill, Greenfields, Dalehall, Sneyd Green and such classical names as Etruria, Dresden and Florence may puzzle the reader. Behind these delightful names lay a sprawling mass of squalid industrialism, pitted with gaping marl-holes or vast mounds of waste from the furnaces and pits. In the streets ran the children of poverty, filthy with heads alive with lice. They were without shoes or stockings and clad in a tattered shirt and torn short trousers or dresses. Stealthily they follow the coal-carts ever hopeful of catching the small black treasures tumbling on to the appalling roads of the six towns. It is true to say that today part of the Potteries is set on vast marl-holes filled with broken pottery and shards of all description. What mystery lies herein for the archaeologist of the post atom-bombed world! Whatever the reader may think let him not forget the long established fact that the warm heartedness of the people of the six towns has been a recognised feature of the district for several centuries.

People would eventually become more educated and rebel at such conditions but the time, 1850, was not yet, and, despite the Public Health Act of 1875, which dealt with houses unfit for habitation, it was to be some 75 years before the squalor really began to pass away. What of the years between? It was one of the worst periods in the slum life of the Potteries.

To follow through the sequence of this history one must present as far as possible a picture of the scene towards the end of the nineteenth century when living conditions were at a very low ebb. Naturally the scene was at its worst in winter so let us picture a back street scene in a Potteries town. It is almost certain that the gusts of wind would be bearing down that street masses of black smoke from the bottle-oven pottery kilns, the smell of which is not easily forgotten, and although now more rare it never fails to awaken old memories and is the embodiment of the Potteries up to about the year 1945. To and from these mean streets and squares hurried the pottery workers to houses whose rent was between 3s. to 4s 6d. a week. The houses were in the last stages of decay but it is a stage upon which the family scenes would have to be enacted for many years for the landlord did little or nothing in the way of repairs and the tenants, lodgers and children were unlikely to do anything to relieve the tumbledown state of the buildings. In Longton some of the worst slums were in the Edensor district (these have only been removed within the last few years), Lower John Street and Lockett's Lane. The area stank. It was said that half an inch of filth could be scraped from walls. In one of the many blocks of houses in Longton was one—a typical example—composed of about thirty houses in which some 140 people lived. The houses consisted, in the main, of one room and a scullery and two bedrooms upstairs. There is little point in reiterating the state of these houses already described at some length in this book. In the yard, an outhouse, the interior of which was divided into six privies, of the night-soil type, served as communal lavatories—to which there were no doors. The rent was in the region of 3s. 10d. a week. It is incredible to think that one of these squares of houses still stood at the junction of Normacot Road and Chelson Street, Longton, opposite to the American Inn, until after the second World War. It consisted of thirteen houses and one corner shop. The author did not see the property but was told that the block of

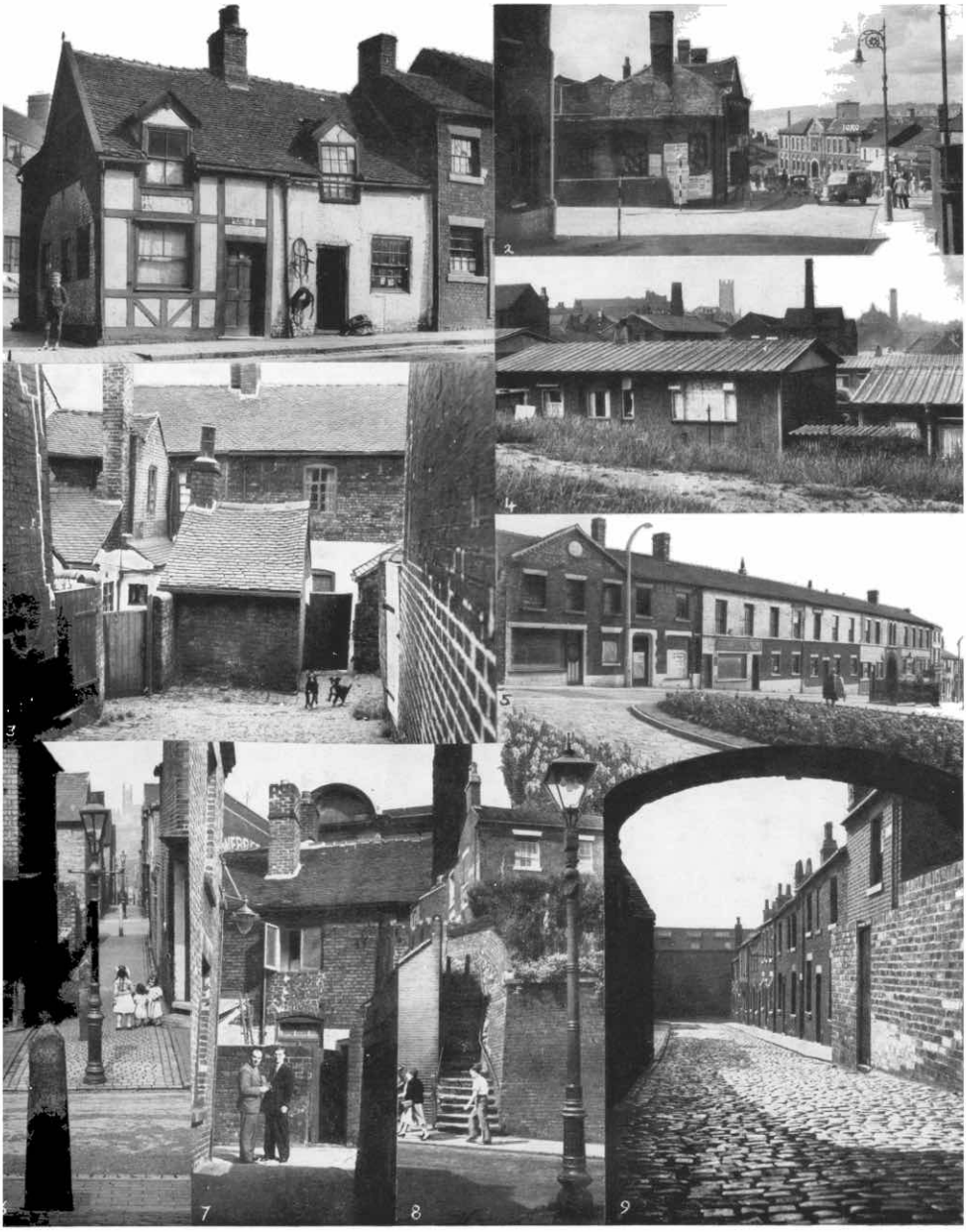
houses had one communal lavatory (water closet) and one water tap, but with a difference. The inhabitants, all of whom were said to be "very happy" were enlightened and educated folk. The houses were clean and sweet despite the disadvantages. As in many more of the so called "slums" of the city the dwellers were forced reluctantly to leave their own homes.

To return to the turn of the century, 1895—1905, one finds that Longton was not alone in its very real slums. Hanley came in for much criticism. Under the Housing of the Working Classes Act of 1890, a committee was formed to carry out the advantages of the Act. The committee moved slowly. They had to, for improvements meant increase in rents which the residents already had difficulty in meeting and combatted this by taking in lodgers—many lodgers—and it was in this way that much overcrowding took place. An example of this was found in a Shelton house consisting of three rooms let at 4s. a week. The bedrooms, less than twelve feet square, had two beds on which slept ten humans as best they may. It is the old story repeated again. The stench of the sodden mattresses, walls, thick with dirt, with innumerable marks where house-bugs had been squashed, broken windows through which little air came. To try to open the window probably meant the whole frame would fall into the street. In one bed in another Hanley home, off Hope Street, slept father, mother, the seventeen-year-old sister of the mother, two boys and a girl. In another house with one bedroom and one room downstairs lived a woman with four children, girls and boys, aged from five to eighteen years. In yet another house of three rooms lived three families numbering fourteen people, four men, four women and six children.

The average density of the population in Hanley, in 1890, was in the region of 34.8 persons to the acre, but as very much of the land was not used for houses the figure rose in places to as high as 250.0 persons to the acre. (In 1951, the average for the City of Stoke-on-Trent was 12.98 persons per acre.) The average number of bedrooms per house was two, which usually housed between nine and fifteen people. Houses were often built having small yards without rear entrances, a few of which are still to be found in the city.

Curiously, Fenton, the town that Arnold Bennett was said to have forgotten, stood out as an example of cleanliness in the six towns. Its streets were said to be "clean and sweet" with few old houses, and people lived to the ages of eighty or ninety. Fenton however had adopted new by-laws in the eighteen-nineties. They allowed no streets to be made which were less than 36 feet wide and no houses to be built with only $4\frac{1}{2}$ inches thick party-walls. They all had to be 9 inches thick. So efficient was the Fenton Council that it was not found necessary for them to adopt the Housing of the Working Classes Act of 1890. Today Fenton is certainly not forgotten. Since the war slum sites at Star Bank, Meakin's Row and Smith's Square have been cleared away resulting in the demolition of 56, 24 and 18 houses respectively, whilst about 600 new houses are to be built at Fenton Park.

Burslem, whose slums in the eighteen-fifties had been probably the worst in the district, had improved considerably. It was said, " Here poverty had decreased, its factories multiplied and its education had advanced by leaps and bounds." The building of new pottery works had resulted in the demolition of much of the old



For information see overleaf

1. This very old, but mock half-timbered house stood, in 1892, in Stafford Street, Hanley, at the lower end of the present Swinnerton's cafeteria. Next to it is a saddler's shop. Similar cottages were to be found on the opposite side of the road as late as 1912.

2. The Bell Pottery, Bethesda Street, Hanley, in August 1949, on the site of which the new Hanley Museum was opened by Alderman Horace Barks, in October, 1956. Broad Street is seen beyond.

3. A Burslem slum (with a difference) at Lower Hadderidge, Burslem, in 1957. The houses, although in decay, were beautifully kept by the residents.

4. Pre-fabricated houses, a legacy of the Second World War, off Broad Street, Hanley, photographed in 1958. Shelton Church is seen in the back-ground.

5. Bell Pottery buildings fronting Broad Street, Hanley, August, 1956, before final demolition.

6. Old-world view at Dresden, Longton, June, 1956. The Church of St. James is seen in the distance.

7. A quaint entry, Stafford Street, Hanley, in 1955.

8. Old-world steps at Longfield Terrace, Bucknall New Road, Hanley, in 1957.

9. Sunlit cobbled arched entry at Milner Street, off Bethesda Street, Hanley. Demolished along with many houses during the latter half of 1958. It was the inhabitants of such houses that found health and understanding in the charitable organisations which did so much good work during the first half of the 20th century. One of these is perpetuated in the Thomas W. Twyford Charity administered by Mr. John Moxon and Mr. James W. Moxon, Solicitors of Hanley. The charity is able to make financial grants in connection with child welfare and to provide suitable convalescence for mothers and young children.

   Another welfare department was formed by the corporation in 1948 to help children in need of care and protection. It has now (1960) some 500 children to nurture—many of whom are boarded out with foster parents.

property, including the 'Hell Hole,' to which reference has already been made. Unsanitary conditions and overcrowding had been reduced to a minimum and crime had diminished, doubtless due to the influence of the sanitary inspectors. In Burslem between 1890 and 1900, 800 houses were built around Moorland Road in addition to about 700 in other parts of the town. Hanley, Stoke and Longton Councils were criticised for their ignorance of the situation and it was said that in many cases the " Councillors just will not recognise that slums exist and certainly keep away from the smell of their slum houses." The Council of Burslem obviously had as its motto : " Work, not Talk." The Mayor of Longton, Mr. A. Edwards, speaking at a local banquet in the year 1900 said: " In the Potteries we had a superabundance of splendid first-class working-men's houses that will bear comparison with any in the kingdom. (Applause.) If there are slums in the Potteries I do not know where they are . . . Longton is the country end of the Potteries."

The New Era

The new century was to witness progress undreamed of, but the transition of the slums of Stoke-on-Trent to the fine estates we know today was to take the best part of sixty years. From 1900 to 1919, time stood still and the picture recorded by Arnold Bennett was still to be seen. The Housing Act, 1919, however, did give hope of improvements to come. The Act was designed to help Local Authorities, then recovering from the 1914—1918 war, to set about house building by a generous subsidy by which the Government met the cost of building houses required above the sum produced by a penny rate. Owing to post-war difficulties with materials, operations were very slow, but in that year (1919) the first housing programme was begun at Basford, Abbey Hulton, Trent Vale and Meir.

In 1924, by permission of an Act of that date, a fifteen year building programme was introduced. The need was urgent and the number of private families living in overcrowded conditions (with more than two persons per room) was 3,105, a total of over 27,500 people. Conditions were particularly bad in the Massey Square area of Burslem where there were 92 tumble-down houses. In 1922, 375 new houses were built in the Borough of Stoke-on-Trent, 350 of which were built by the Corporation and 25 by private owners. Some figures of houses built in the first quarter of the twentieth-century make an interesting comparison with the vast numbers built in recent times. In 1910—322 houses, 1912—158 houses, 1914—90 houses, 1915—33 houses, 1917—3 houses, 1919—1 house, 1920—no houses, and 1921—54 houses. It was estimated that in 1924 there was a shortage of between ten and twelve thousand houses in the Potteries. In 1923, the number of houses built fell to 224 despite the generous subsidies given on long terms. The Housing Committee of the Corporation had a large scheme on hand allowing for 500 new houses to be erected by the Corporation and 1,000 by private enterprise within the two following years. During the next thirteen years the building of a regular number of houses was contemplated.

The Housing Act of 1930 made extensive provisions for the demolition of slum houses and the Corporation were really able to set about the problem. The Corporation of Stoke-on-Trent was the first in the country to submit to the Ministry

of Health a five-year programme of slum clearance. Here again a useful subsidy was provided to which the Corporation had to add a proportionate sum. The five-year plan of slum clearance began in the city, mainly on paper, in 1933, and work was actually started in 1936 and the speedy development of suitable sites made it possible for the building of about 1,000 houses yearly. During the years of World War II all work was suspended. In 1952-3 the work of clearance was again started—this time with great determination, for the City Council was determined to carry through its housing schemes at all costs. Demolition and closing orders totalling 139 were carried over from 1952 and 444 made in 1953. Eventually the scheme was literally to change the housing history of Stoke-on-Trent and largely to do away with a way of life that had existed for over a hundred years. It was to result in a transitional state in which the streets in the rear areas of the city were to present a picture of emptiness, desolation and decay that suggested the results of heavy bombing during the war. It was to shake the city from end to end—pleasing and displeasing—uprooting aged people, many in their nineties, hurting them and reducing them to tears. Compulsory orders of demolition, subject to appeal presented little hope. It was inevitable that many were hurt in the march of progress. One aged lady in Etruria was found weeping after receiving the usual curt order concerning the demolition order of her home in the main street. In tears and holding the official paper in her hand she declared: "I pray that God will take me before they come." This case was sympathetically dealt with by the Town Clerk and she lived there almost to the time of her death. For a long time Etruria was indeed a ghost village.

In the six towns old houses were demolished en masse, and in many cases pushed down by simply backing motor lorries against the perished, crumbling walls. In the Edensor area of Longton vast open spaces were left for a while, on which bright new houses later appeared. The sight of these open spaces was uncanny yet uncommonly peaceful. It was as though several centuries of squalid history had been swept away with not a brick left to tell future generations of a scene that was the embodiment of the Industrial Revolution. The clean winds swept the area and one glimpsed something of the times when the "Potteries" was open country.

At the risk of departing from historical writing in its accepted sense, one ventures to record a strangely moving incident. Sunday, June 2nd, 1957. The time is almost 6.15 p.m. The village of Etruria is bathed in the golden sun of a summer evening. The silence, as one stands in the main street—Lord Street—now Etruria Road, is such, as is rarely experienced in the City of Stoke-on-Trent, that it brings home the fact that Etruria is still a village—if a dying one. The remaining few loyal worshippers filing slowly into the Methodist Chapel seem oblivious of the desolation of their ghost village. The houses are in the last stages of enforced decay. Doors hang drunkenly, windows shattered, roofs and ceilings half gone. The houses that Josiah Wedgwood built for his work people, about the year 1769, are in various stages of demolition. In the evening sunshine the scene beyond has a beauty of a rare quality. The great steel works is silent and the gentle breeze carries the scent of the grass and wild flowers found growing at the back of the desolate houses to the passer by. As from afar the music of the bells of Wolstanton Church is carried

softly on the breeze, swelling and fading, elusive and unreal in the industrial yet country scene. Standing on the beams of an upper room of one of the last cottages the view no longer obscured by begrimed glass or window frame, one's eyes meet a scene reminiscent of long ago. The green grass of the little back gardens meets the hills of what were once the Bradwell Wood, until the gaze rests on the ancient church of Wolstanton. In the golden sun, the heat, and most of all the silence of this Etruscan scene, one realises that in those nostalgic moments one had in truth traversed a century of Potteries history in that half-hour of mystic revelation.

The urgency of the housing problem was well illustrated by a three-line advertisement that appeared in the *Staffordshire Evening Sentinel* in December, 1951, offering a two-bedroomed house to let, to which 874 replies were received!

Due to slum clearance in the city, 3,773 houses had, by February, 1955, been included in the clearance orders as confirmed by the Ministry of Health. Also there had been 104 compulsory purchase orders issued. There were many cases of hardship. Compensation was small and it was a case of get out or be moved. Movement meant, in many cases, going to new housing estates, miles away, at a greatly increased rent. It is recorded that by February, 1955, 3,688 houses had been demolished and 4,266 families had been re-housed. Slum clearance in the city reached its peak in 1956. In 1955 the Ministry approved the estimated number of unfit houses in Stoke-on-Trent to be 12,000 and it was proposed to deal with 6,000 of these in the first five years. During 1955, 1,000 houses were demolished and the sites cleared.

Land on which to erect the new housing estates was gained either by negotiation or compulsory purchase. Public enquiries were the order of the day. Longton was by far the largest area affected. A clearance of 1,200 houses a year was the target of the Corporation in a slum clearance project that involved 12,000 houses, whilst building of new houses was taking place at the rate of 2,000 a year, in 1955-6. There was a welter of figures and statistics. There were about 85,450 inhabited houses in the city in 1956 and of these about 20,000 were built between 1870 and 1914. Since the war, and by February, 1958, 15,750 houses had been built by the City Corporation. Councillor Harold Clowes, O.B.E., J.P., Chairman of the Housing Committee (and now Alderman Clowes, Lord Mayor of Stoke-on-Trent for the Jubilee Year of the City) was the driving force behind the vast schemes. In addition over 1,600 had been privately built. Mr. W. G. Barratt, the Burslem philanthropist, gave £20,000, amongst other gifts, for the erection of bungalows for aged people under a scheme known as Barratt Gardens at Carmountside. Mr. Barratt laid the foundation stone on November 30th, 1954. Another gift from Mr. Barratt of a further £20,000 enabled twenty more bungalows and a social hall to be built at the Blurton Farm Housing Estate. The foundation stone was laid here by Miss Winifred Barratt, on March 8th, 1955.

A number of Housing Acts, between 1930 and 1954, dealt with houses built for letting, financial aid, building materials, improvements to old property and rents. Houses were built under a multitude of names and code letters, ranging from bungalows and prefabricated houses to luxury flats. The neighbourhood unit is the pattern for the future of all housing, enabling the best conditions to be created all

over the city. These housing estates, with a capacity of approximately 10,000 persons, must be seen to be believed and certainly nothing like them has ever been seen in the city before. When completed the Ubberley, Bentilee and Berry Hill units will cover an area of 735 acres with about 6,400 dwellings, housing a population in the region of 25,600 persons. A few years ago this area was open country—some of it quite desolate. The ancient Ubberley Hall, demolished 1958, and Farm were lonely spots. Planned for the Ubberley and Bentilee unit were houses, shops, cinemas, public baths, churches, schools, community centres, health centres, hotels, public houses, police stations, garages and open public spaces.

One can well imagine that a big sewerage scheme was necessary and that there were many roads and streets to be made at an ever increasing cost. Indeed, the pre-war cost of site development averaged about £60 per house. Today it varies from £140 to £180 and more per house. Three types of living accommodation have emerged, (i) the kitchen-living room house, (ii) the working kitchen house, and (iii) the dining-kitchen house—the latter two being most convenient and economical. The dining-kitchen house type has been adopted by the Housing Committee for the two- and three-bedroom type houses. In this house the ground floor contains a living room and kitchen. In this type of house the back to back solid fuel appliance is found to be the best method of heating the rooms and for obtaining hot water. Electricity is used for lighting and gas and electricity may be used for cooking. Running water is supplied from one tap, the remainder being from a storage tank. Standardisation of units makes it possible to erect many houses in a short period of time, especially as the making of bricks and tiles of all descriptions form part of the local industry.

Reports of the Stoke-on-Trent Housing Committee show that a three bedroom house of 800 square feet floor area, built in the year 1938-9, less cost of land, roads and service, was £380. After the war, by 1949, a similar house of just over 1,000 square feet area cost £1,321. A similar house in 1955, with an area of 900 square feet cost £1,435. The cost continues to rise.

In the early years after the war 662 bungalows and 771 pre-fabricated houses were built to ease the immediate housing shortage. Houses were being built at the rate of 2,500 in the year 1954—a figure that has been maintained. Thus the Corporation has erected houses in Stoke-on-Trent in varying numbers, from 54 in 1921 to 2,500 in 1954. It is a proud record that Stoke-on-Trent has completed more houses per thousand of the population, in every quarter of the year, since March, 1953, than in the twenty-four largest County Boroughs in England and Wales. In addition flats have been built and fine examples of these may be found at the Blurton Farm Estate where two blocks of three-storey flats, containing thirty flats in each, have been erected. The flats are electrically heated and modern in every way and are set in delightful surroundings.

Housing Acts of 1899 to 1923 have made it possible for the Corporation to advance loans to people building, or buying, their own homes. There is the Housing Act of 1949 for making loans on or mortgage for the repair, improvement and conversion of housing accommodation. Such improvement and modernisation was well illustrated at Gilman Street, Hanley, where the City Housing Committee had

modernised seven houses to encourage landlords and owner-occupiers to carry out similar work for which grants up to £400 could be obtained. Over 14,000 people passed through the houses which were open for inspection. One of the main features of these conversions was the installation of a bathroom complete with bath, basin, water-closet and heating cylinder and cupboard. Formerly none had existed other than a backyard water-closet.

Housing in the city is now keeping pace with education for herein lies the solution of a problem. The slums and squalor of the nineteenth century are almost past. In those times it was little use turning a mass of ignorant people into new homes (even had they been available), for these—as indeed is occasionally found today—would have quickly become squalid slums. It was the educating of the people that was to be a vital factor demanding homes and a standard of living for the people which is so richly illustrated in Stoke-on-Trent at the present time. A brief illustration of this will be of interest.

At Abbey Hulton in 1930-31, families from slum dwellings in Hanley were re-housed on the newly built housing estate at Carmountside. At the new school on the estate, Carmountside Secondary Modern, Mr. G. Ackerley, the headmaster, said: " The general characteristics of the children from the slums were, low standard of cleanliness and dress, lack of respect for other people's property and lack of interest in school. Visits to the police were all too common." Contrast this school now. For many years it has had one of the best records in the district. The appearance and bearing of the children earns the praise of visitors. Their health reports have been " excellent." The school choir has broadcast for the B.B.C. and the school has already a fine sporting record.

Applicants for Council houses are chosen by a points scheme adopted by the Housing Committee in October, 1946. Points are awarded to applicants according to their needs, i.e., whether in lodgings, already householders, and so on.

The reader must form his own conclusions on this chapter in the light of present day conditions. In 1750 if you possessed a house you even had to pay duty on the windows. If the house had up to six windows you paid 4s. 2d. duty a year, and if you employed a man or servant 25s. duty was payable. If you wished to wear hair powder or a powdered wig (the mark of the gentry) a licence costing a guinea a year was needed. Even hats were taxed according to their cost. On a hat costing up to 4s. the duty was 3d. Hats over 12s. paid 2s. duty and the duty stamp had to be attached firmly to the hat.

In 1850-55, one could purchase new houses which the North Staffordshire Permanent Building, Investment and Freehold Land Society of Cheapside, Hanley, was proposing to build, consisting of three rooms downstairs and two rooms upstairs for between £60 and £70 a house, land included, or a house of three rooms down and three rooms upstairs for between £90 and £100 with land, whilst those of three rooms down and four upstairs cost £120 to £130 with land. Houses could also be rented at 4s. or 4s. 6d. a week. There was no shortage of houses provided one did not mind what condition the rented houses were in! On the year 1902 being reached one could furnish a home from Sankey's " the largest furnishing warehouse within fifty miles of the Potteries " in High Street (Town Road), Hanley.

Dining room suite, in best hide, cost £6 17s. od., and a complete walnut bedroom suite cost £14 10s. od. You could feed your family with eggs costing 4d. a dozen, on corned beef at 4d. a pound or mutton chops costing 2½d. a pair. Your wife and children could enjoy ice-cream, jam tarts or a bar of chocolate cream for ½d. each and father could obtain a glass of beer for 1d. or fish and chips for 1d. per packet, rounded off with a packet of ten cigarettes for 1d. Even that "new" food, bananas, could be purchased in the Potteries from Mr. Charles Mellor, who claimed to be the first fruit merchant to sell them in Hanley Market in 1903. He was temporarily stopped by the police from selling them because they had not seen them before and thought they might be dangerous to health! Today the march of progress continues at a cost—the cost of a general rate of 22/6 in the £ in Stoke-on-Trent.

Smoke

The hard-dying picture post card of the Potteries, bearing such a title as " This place 'soots' me nicely," shows the district almost obscured by a pall of black smoke. This impression, once correct, is today but a travesty of the truth. Yet the smoke problem is vital in the health of the people of the six towns.

On June 1st of this year (1958) a new law takes effect by which it will be illegal for chimneys to emit " dark smoke." Designed to reduce smoke nuisance from factory chimneys the Clean Air Act, which received Royal Assent in July, 1956, will further the work that has already been going on for many years to make England, and the Potteries in particular, a cleaner and healthier place. Dark smoke, as defined in the Act, is rarely emitted by domestic chimneys and will therefore not effect the burning of coal in the hearths of the Potteries homes. The Act supersedes the old Smoke Abatement Law, which has been in operation, without change, for over thirty years.

It may surprise many to learn that smoke abatement is not necessarily the product of this century. Probably the earliest known attempts to prevent the pollution of the air above the Potteries were made in the year 1820, when Mr. Spode attempted to consume the smoke made at his manufactory in Stoke. Unfortunately this had not been successful and Mr. Spode's successor, Alderman Copeland, had declared that no plan had yet been perfectly successful. In 1850, a public meeting was held in the Town Hall, Stoke-upon-Trent, " for the purpose of considering the propriety of petitioning the House of Commons in favour of the Smoke Prohibition Bill " from which Bill the Potteries had been excluded! The meeting was called by the Chief Bailiff, Mr. J. H. Sheppard, in compliance with a requisition signed by " 24 respectable inhabitants of the town " who stated in the document " that the prevalence of large volumes of smoke, unnecessarily escaping from the steam engines and slip-kilns (of Stoke) is hurtful to health and injurious to vegetation." Also " That the resources of modern science are fully competent to remedy the same nuisance." Curiously, only four of the requisitioners were present at the meeting which consisted of about twenty people, namely of the " operative class." The Chief Bailiff said that he was not prepared to say that any plan of preventing the smoke arising from the potters' ovens had been carried into full and complete operation, and therefore it was not proposed that the Act should affect them. This statement suggests that one of the main causes of air pollution in the Potteries was then not

fully understood. Dr. Robert Garner, who had at this date, 1850, been a resident in the district for thirty years, said that the compulsory consumption of the smoke generated by the chimneys of the steam mills would be to the manufacturers a saving of money and to the public an improvement in health and comfort. Dr. Garner, who lived at Stoke in a house that still exists just above Station Road although hidden in a block of offices, gives us an accurate picture of the scene at that time when he says: " As travellers approached the neighbourhood they saw it enveloped in smoke to such a degree that everything was obscured, and on arriving at Stoke they saw the tall chimneys . . . vomiting forth dense clouds like the crater of a volcano . . . Trees such as the long-lived oak soon perished when exposed to the influence of the smoke. Smoke from the slip-kilns and steam mills caused five-sixths of the nuisance," declared Dr. Garner. It was suggested also that vapours of " a frightful character " from bone-holes (bone works where bone was calcined) and tallow-chandlers' shops was also disagreeable and injurious, but this was left out of the resolution as being " foreign to the purpose of the meeting," although a resolution depreciating this was carried. Dr. Garner moved the adoption of a resolution and petition in accordance with his views. The petition was later signed by leading men in the district. Writing in October, 1865, the special correspondent of the *Daily Telegraph* penned many unkind words concerning the six towns—much however, was no doubt true. " The hawthorn bushes are dusky looking," he declared, " and the few tall trees are blackened by dense volumes of smoke and the whole atmosphere is impregnated with smoke." He continued, " the sparsely covered places between the Pottery towns are mostly occupied as brickfields in which women and children are in low servitude. Broken ledges, walls repaired with old saggars and roads mended with pottery refuse are common." To the smoke and disease the correspondent attributed " the terrible shortening of life " and said: " The Pottery towns are built on hill slopes or they might be so many cesspools of noxious matter." Of Saturday night in the Potteries he wrote of: " Women going to market . . . of sweethearts courting in that most inappropriate place, the Queen's highway . . . of starless blackened skies . . . of the irridescent glow from the furnace fires and of typsy colliers and potters, singing no end of nigger melodies." He further declared: " In the Potteries the working man's life is one round of debt, debt, debt to the shopkeeper " although in the Hanley Market Place he found they found cash for the " quack " doctor, the buyers of whose nostrums never die. " The women," he said, " were the cat's paws of men . . . They are made to do all the loan office (pawn shop) business for the men."

Business at these shops or offices was enormous and large sums of money were loaned on articles in pawn. In addition great sums of money were also spent at the pawn shops in either redeeming these goods or buying other articles. Such places kept open to all hours. Mr. Charles Tildsley speaks of the Jubilee celebrations in 1887, when at one o'clock on the Sunday morning police escorted the £2,000 takings in gold and silver from Messrs. Butters, pawnbrokers shop and loan office in Trinity Street, Hanley, to the police station for safety. These were the halcyon days of pawnbroking.

In addition the women " have to confront the landlords with no rents—and they

plead with the shopkeepers for further trust, while the 'potters' skulk ashamed at home or in the public house." At this time (1865) a number of "gin palaces" had been opened in Hanley, all within a few months. The *Telegraph* correspondent did not fail to see these together with "a low playhouse and a not much better singing saloon." This then was the Potteries in 1865, a medley of "gin palaces," public houses and loan offices—of drunkenness, "nearly every vice to a greater or lesser extent and thousands of good men contemplating them with grief and labouring to correct them," plus the smoke!

Another cause of smoke at this period was the burning of blackband ironstone at collieries, many of which mined the stone in addition to coal. This would appear to have been a considerable nuisance in the district and it is recorded that in Burslem in February, 1867, the inhabitants of the Sytch sent a memorial to the Burslem Town Sewers Committee, complaining of the ill-effects of the smoke. The complaint was in respect of two stacks of ironstone at the colliery of Messrs. Haywood and Wood nearby. Action was taken, so that as soon as the stacks were lighted the medical officer should visit them to decide whether they were in fact injurious to health (and of which there was little doubt), in which case proceedings were to be taken to abate the nuisance under the Sanitary Act of 1866, which was barely a year old and did not come into operation until August, 1867! This proviso, giving a few months grace to manufacturers in the district, had had little effect and so far as the Potteries were concerned no effective steps were taken by the public bodies to enlighten those who might be interested in the subject of the Act—Smoke Abatement. Only when the law came into operation did delegates from the local governments of the towns attend a conference at which they supported the terms of the Act and demanded an abatement of the smoke nuisance in the Potteries. They then turned the whole matter over to the Chamber of Commerce and the Ironmasters' Association. The Chamber of Commerce offered a substantial reward as a stimulus to the mechanical genius of those who might be able to solve the great difficulties associated with the problem. Perhaps spurred on by this offer, Messrs. Holdcroft and Wood, of Tunstall, introduced a method by which "smoke is consumed and coal saved in the firing of pottery ware." The method could be seen in operation in July, 1867, at their manufactury and also at those of Wedgwood and Co., Tunstall; at Ford and Challinors, Sandyford; at Challinors, Fenton; at Powell and Bishops, and at Dimmocks, Hanley—all well known factories of that time. The large firm of Powell and Bishop (later Bishop and Stoniers) occupied the Stafford Street site of the present block of shops from the foot of Lamb Street, Hanley, together with the Hanley Arcade. In addition they had an equally large works known as the Church-Bank Works, in High Street, Hanley (renamed Town Road in April, 1955) and occupying an extensive site between the Tabernacle Church and Abbey Street (now Basalt Street) on which the King George VI Old People's Club and other buildings now stand. Dimmocks great factory occupied the site on which was built a skating rink and later a cinema now named the Essoldo.

By this new method fires were lighted and baited in the usual way. The fire being lighted, a portion of the heat was carried up the "bags" into the outer circumference of the "bottle" oven, and the remainder along reverberating tunnels

For information see overleaf

1. A photograph (by courtesy of the "Evening Sentinel") by Mr. E. C. Stringer, showing the interior of an "exhibition house" set in the Victorian style at Gilman Street, Hanley, in November, 1954.

2. The "well-to-do" of the Victorian era play croquet on the lawn of their Potteries mansion.

3. Another picture in the exhibition house showing the drudgery of the working-class housewife in the late Victorian and the Edwardian periods. The exhibition was staged in houses in Gilman Street depicting the interiors before and after modernisation.

4. Street "Victory" party after World War II, photographed at Albert Street, Sandford Hill, Longton. It was typical of the many held in the Potteries.

5. February 14th, 1952. A winter's scene at Miles Bank, Hanley. The patient and faithful horse is now a rare sight in the district.

6. Demolition, in 1957, of houses Josiah Wedgwood had built for his workpeople about 1769. From a photograph (by courtesy of the "Evening Sentinel") taken by Mr. N. Clegg.

laid under the floor of the oven to a central hole, and in the ordinary way both heat and smoke, after passing through the oven, escaped into the open air. Smoke and waste was prevented by the new method to a " surprising degree." The method was described thus: " The aperture at the top of the oven—not that of the hovel or outer casing of the oven—was fitted with a damper, which was left open in the earlier stage of the firing, but as the combustion went on it was gradually lowered by stages of about four inches each, and both smoke and heat were consequently to a great extent prevented from escaping. They were not, however, confined within the oven, but by a downward draught carried through the oven again—the smoke being mostly consumed in its progress—and passing into the central hole was conveyed along an underground flue to a tall chimney, which created the draught by which the reverberation of the smoke and heat from the top of the oven was carried in." At the two works of Bishop and Powell, two " biscuit " ovens were equipped at each works and it was estimated that three to four tons of coal per oven was saved—though over what period was not stated. In addition they claimed that owing to the " greater steadiness in the firing, the loss in saggars was reduced by one-third." Tall chimneys sprang up at many pottery works where formerly only the comparatively low bottle ovens had been seen.

In view of the Smoke Abatement Act which comes into operation within a few days of my writing, together with the drive for a smoke-free City of Stoke-on-Trent, it is interesting to quote part of the Act of 1866, relating to the smoke nuisance 92 years ago. It reads: " Any fire-place or furnace which does not, as far as practicable, consume smoke arising from the combustible use in such fire-place or furnace, and is within the district of a nuisance authority for working engines by steam, or any mill, factory, brewery, bakehouse, or gas work, or in any manufactory or trade process whatsoever."

In the Potteries the words " as far as practicable " were regarded as " of a saving character " and the good people sighed with relief! The authorities however meant business and offenders were frequently fined under the provisions of the Act. In July, 1869, one finds Mr. Joseph Foster, a brick manufacturer of High Street, Hanley, in the Hanley Police Court charged with using a fire-place or furnace which did not as far as practicable consume the smoke arising from the combustible used in the said fire-place or furnace. Mr. Foster had previously been before the court charged on what was called " the black smoke clause " of the Act! As it was said that the smoke from other brick-kilns was consumed it appeared that the gentleman deserved the fine.

Possibly the smoke history of the last third of the nineteenth-century in Stoke-upon-Trent will be repeated in the years following June, 1958. Certainly smoke abatement was a tricky problem and chimneys belching black smoke were common despite the Act. In an intensified attack on offenders in 1884, Alderman Boothroyd, Chairman of the Sanitary Committee declared that they were at the present moment exercising much more vigilant supervision over the smoke evil than had been the case for some time past. In April, 1885, cases of smoke nuisance against the Northwood Colliery and Earl Granville were brought before the Hanley magistrates. In the case of the colliery a nominal fine of 1s. was imposed and costs of £1 9s. and

the case against the collieries of Lord Granville was withdrawn on payment of costs.

In 1893 Mr. John Gratton, of Burslem, who had 25 years' experience as a potter's fireman, issued a pamphlet on " combustion and smoke prevention." He also made an attempt to carry through the patent office an improved system in the construction of potter's oven bottoms and received the seal of Royal Letters Patent in December, 1894. As his invention saved 30% in coal it was claimed that it reduced the output of smoke. The reader will perhaps forgive the somewhat long digression on smoke but when one considers that for over a century the Potteries has been depicted by the artist, photographer and writer as a district almost completely obscured by a pall of dark smoke one realizes the part smoke has played in our history. In 1911 George Bernard Shaw, lecturing on Socialism at the Victoria Hall, Hanley, asked, " I have only been in the Potteries for a day—Hanley is a fearfully ugly place . . . How do you stand it? I suspect that the people of the Potteries are mad . . . I wanted to get into fresh air, but the more I went up the hill (to Hartshill) the worse the air got. I started to count the chimneys of Stoke (tall chimneys) and gave up when I came to 123 . . . . the only object of art I could see (at Hartshill) was the sanitary laundry . . . . all the chimneys were smoking . . . . If those chimneys were smoking in London somebody would take a photo of them . . . . If chimneys smoke like that you will have a large graveyard as a consequence . . . . but I am going away (from the Potteries) first thing tomorrow morning and I will not come here again until you clean it and make it a better place to live in." Mr. Shaw added that he did not come to the Potteries " in any of your vulgar trains. I am a socialist and I have a motor-car, consequently." After seeing the Potteries and its smoke Mr. Shaw said of Arnold Bennett: " I never used to believe what he told me about the Potteries . . . . I now understand why he lives most of his time in Paris. I know I ought to lecture on socialism here, but I did that 19 years ago."

So the " burning question " of smoke continued unabated and by 1925 the Medical Officer of Stoke-on-Trent presented his views on the situation. He said that 709 timed half-hour observations of boiler chimneys were taken during the year. As a result proceedings before the Court were ordered in two cases out of twenty-two offences reported. Of the 709 observations, 379 showed black smoke emitted for four minutes or more and in 141 cases there was no black smoke. As regards pottery ovens and kiln stacks, 20 half-hour observations were made in which 203 minutes of black smoke were recorded. Nineteen observations were made after interviews and discussions with the kiln firemen, who co-operated, with the result that only 5 emitted black smoke. This clearly indicated that careful firing was an important factor in smoke abatement.

The word "smoke" covers a number of offenders against the health, including soot, grit and ash and it has been estimated that in the first half of the twentieth century there were at least 3,800 industrial chimneys in the City of Stoke-on-Trent from which smoke poured. Gas and electrical firing of pottery has resulted in the displacement of some 1,600 coal-fired ovens and kilns. Coal-fired ovens have now been reduced from about 2,300 to about 600 ovens whilst the amount of coal used for this purpose shows a reduction from 750,000 tons to 185,000 tons a year. There are at least 600 gas and electrically fired kilns in the city in which there are some

275 pottery manufactories. Such methods of firing pottery are making the old " bottle " intermittent ovens obsolete.

The Clean Air Act, 1956, should transform the Potteries landscape. Only the small works are likely to continue using the old methods of firing owing to the outlay in installing the new methods. Dr. J. S. Hamilton, the Medical Officer of Health, records that in one year, 1956, seven new gas-fired continuous kilns and forty-seven new electrically fired intermittent kilns were brought into operation. He also says that the reduction in the number of steam boilers in factories and collieries have been reduced from 670 to 250, due, in the main, to the use of electricity. Locally on the railway the diesel train is, to a large extent, superseding the coal fuelled engine. The effect of the smoke on the present population of the city has therefore been greatly lessened, but it should not be forgotten that much of this improvement from the " bad old days " of smoke has been counter-balanced by heavy and deadly pollution from road vehicles. Smoke, fumes and ash blacken and damage the lungs and cause irritations in the throat and bronchial passages, lung cancer, bronchitis and catarrh. A vigilant Public Health Department has pollution recording stations in all the six towns of the city—fifteen in all. This work has been going on since April, 1924, when the first station was installed at Tunstall Sewage Works, and transferred to Hanley Sewage Works in January, 1925. The Standard Deposit Gauge collects the effects of air pollution by means of a funnel and bottle. Over monthly periods the deposits washed out of the air by rain and the results of analysis is expressed in tons per square mile per month. In addition another method is used in which a cylinder is coated with lead peroxide and exposed to the atmosphere for monthly periods and then analysed for resulting sulphates. This method provides comparative data.

In 1956 the heaviest reading estimated in solid deposits, in tons per square mile, was recorded at Etruria where a figure of 594.2 was reached—at least double of any other area in the district—and at Etruria the instrument was out of action for one month during the year! From this figure one may imagine what the size of the deposits would have been in 1933 or earlier when there were only 17 gas and electrically fired kilns in operation compared with at least 678 in 1956.

Today, in 1958, the situation is rapidly changing and no longer can the people of the Potteries look askance at the chimneys and potters' ovens for the astonishing fact emerges that almost 60 per cent. of the smoke over Stoke-on-Trent is caused by the domestic chimney.

The position is brought home still more forcefully by a statement made by Mr. E. James Johnson, a managing director of Johnson Brothers (Hanley) Ltd., when he declared that with modernisation and the complete elimination of coal firing the three factories of the company in Hanley " produce less smoke than a council house." It is then not surprising that in August, 1951, that on being telephoned by a London film producer for suggestions as to how to obtain smoke pouring from a bottle oven —at short notice for the filming of a scene from "The Card" by Arnold Bennett (set in the last thirty years of the 19th century), one had to suggest that the Stoke-on-Trent Fire Brigade might oblige by creating artificial smoke!

CHAPTER 10.

Hospitals and Cemeteries

Through the twelve-mile-length of the City of Stoke-on-Trent a well equipped health and hospital service is prepared to deal, at a moment's notice, with any emergency. Today if the concentrated skill of the doctors and hospital staff fails to save life the body is humanely, and speedily—but with reverence—disposed of by cremation or buried in one of the city's cemeteries. This has not always been the case in the Six Towns of the Potteries.

The age of the "quack" doctor and purveyor of patent medicines has, in the main, passed. An Act of 1748 prohibited the unlicensed manufacture of patent medicines, but for something like 150 years the Potteries was to have its quacks and their potions which evaded the law by various means. There was however no quackery about the " dentists " of those early times. Until at least the turn of the 19th century the Hanley Market Square rang with the agonised shrieks of the various inhabitants as their molars were extracted by travelling practitioners in their dental booths. Saturday, market day, was a favourite time for such work. These booths were invariably surrounded by a crowd of Potteries people who watched the facial contortions of the patient with varying expressions of sympathy or glee.

For those who were prepared to pay a little more, one was informed in 1857, that Mr. T. H. Mallam, Surgeon-dentist, of 19 Liverpool Road, Stoke, was "At Home" daily from ten to six, except Saturdays. Doubtless one reason for the attendance in the Market Square, Hanley, on Saturdays! Possibly more distinguished still were Messrs. Crapper and Brierley who, under the Royal Coat of Arms, extracted teeth in their Piccadilly, Hanley, establishment and later at the White House, then a fine mansion in Broad Street, Hanley.

Now occupying the site of the White House is the Mitchell Memorial Youth Centre, built at a cost of £50,000, in memory of R. J. Mitchell, C.B.E. (1895-1937), a son of the City of Stoke-on-Trent and designer of the "Spitfire" Fighter Aircraft used in the Battle of Britain, September, 1940. Containing a theatre the building is designed for almost every type of youth activity and was opened on October 28th, 1957 by Group Captain Douglas R. S. Bader, C.B.E. The Youth Department with Mr. John Degg, Senior Youth and Community Organiser, moved to the building in January, 1959.

As early as 1856, at the former establishment, the "unprecedented" improvement in dental surgery could be obtained in the form of artificial teeth. Consultation was free and the people were naively reminded that "parties can be attended at their own residence—or by attending the side door in Piccadilly." Two years later in December, 1858, at the White House, Mr. J. S. Capper started to use " laughing gas " (Nitrous Oxide gas) on his patients as an anaesthetic to the delight we are told of his patients!

The early medical history of the Potteries is obscure. One of the most distinguished surgeons was Dr. Erasmus Darwin. Although not of this district he attended James

Brindley, the canal engineer of Turnhurst Hall, Thomas Wedgwood and also Josiah Wedgwood of whom the doctor was a close friend. It was not until 1834 that we find a list of twenty-three surgeons in the Potteries. There were eight in Hanley, six in Burslem, four in Stoke, three in Longton, two in Tunstall, but none in Fenton. Twenty-two years later the North Staffordshire Medical Society was formed.

In order to emphasize conditions of health in the Potteries when life, through disease, was transient and uncertain to the present time when the long span of life for the major part of the population is reasonably certain, it is proposed to deal with the question of burial.

In our cemeteries the early and present gravestones reflect the fight of man against disease. These stones form almost the earliest records of burial locally for little is known of pre-historic burial in the land which several thousand years later became known as the Potteries. It is curious that much of the pre-historic burial was by cremation a method now considered modern and much in use. In pre-historic times the ashes of the body was often buried in urns and sometimes also the smaller, or portions of, bones. These cinerary urns varied in size. Some were very small. One of these, thought to be of Celtic origin, was found at Penkhull and was only three inches wide and two inches high. The decoration was primitive and it is said to have been done in an early stage of the Bronze Age—perhaps 3,000 years ago. As it is thought that the Celtic civilisation of Penkhull would be of the later part of that era it was considered difficult to fix a date other than that the urn was many years prior to the Christian era. The urn was in the possession of the Scrivenor family.

In 1647-8 victims of the plague (described in a former chapter) were buried in communal graves dug near the Grange in a shallow hollow known as "Singing Kate's Hole" whilst the parish registers of the church of St. John, Burslem, begin with the year 1636.

As the years passed the population increased rapidly with the result that in the early nineteenth-century deaths through disease and epidemics were frequent. Burials were then, equally frequent, and often haphazard and gruesome ceremonies. Many of the people of the Potteries were poor. They died and were accorded a pauper's funeral. The coffins containing the bodies were little better than thin wood boxes roughly nailed together to be disposed of as speedily as possible and with as little ceremony. Only the rich had their family vaults and mausoleums. Consider a typical pauper's funeral in Burslem, about the year 1845, that of "Owd Rafe." Simple in mind this poor man spent his working days as an "odd job man" at a "potbank" in Burslem. Poverty, malnutrition and an ill-kept home had resulted in his untimely death. He was put in a "workhouse coffin" and the small procession left his cottage and went down the slippery bank of clay. The bearers "in their semi-drunkenness either slipped or stumbled on the wet clay . . . The miserable work-house coffin burst open and the poor body rolled from its paltry shroud, the arms and legs flailing the air in the stiffness of death before a crowd of neighbours for which a funeral was an occasion." Crudely re-boxed the body was conveyed to St. John's churchyard and buried in a shallow grave.

There was no limit to burials in churchyards. It is recorded that in one churchyard alone—that of the small area at Etruria Church no less than 800 burials took

place between 1849 and 1865, and 64 of these had taken place in the year 1863.

In a London cemetery—that of St. John's, Clerkenwell, 3,073 persons were annually buried in each acre of ground in 1847. In the Potteries the numbers were also large. The *Staffordshire Advertiser* newspaper states: "We will not shock our readers by recalling any of the shocking scenes . . . . The dullest mind can imagine the abominations which took place in which dead bodies may not rest for more than a few months before being thrown up piece meal by the spade—or secretly removed to make way for others . . . . We see the connection clearly only when the exposure of putrescent remains, or the escape of effluvia from an opened grave, immediately produces horrid varieties of disease, sometimes like fever, and sometimes like the plague . . . . We know that the poisonous gases emitted from the dead bodies . . . . kill some people." The heavy rains in winter resulted in polluted water from some of the churchyards soaking into the ground causing pollution of streams and wells whilst the stench of the dead rose above the graveyard.

At this time a general agitation was taking place in London against the terrible conditions of burial. In the Potteries in December, 1857, the members of the Burial Board were at last making a move to improve local conditions. They inspected 28 acres of land, owned by the Duchy of Lancaster, for suitability as a cemetery at Etruria, on which the park is now to be found. They also inspected a piece of land owned by Mr. Bishop on which Chatterley House stood and also land below Cauldon Place, between the Stoke and Leek Roads, owned by Sir Thomas Boughey, and land at the Ivy House, Bucknall, and Hartshill. In August, 1858, exactly 100 years ago, the agreement for the purchase of part of the Shelton Hall estate was approved. The cemetery was to be modelled on that of Coventry. Sixty-five architects submitted drawings in a competition for a design for a cemetery, chapel and two lodges. Messrs. Ward and Son of Hanley were awarded the first prize.

The cemetery was consecrated and opened late in April, 1860, but there was a curious opposition to the Act of Consecration by many. Councillor T. Pidduck proposed; "The Council should not recognise the Act of Consecration by the Mayor and Council attending the ceremony." This motion was seconded by Alderman Boothroyd. The Repeal of the Test and Corporation Acts had placed all dominations on an equality in secular matters. A favourable resolution was passed and despite this the Mayor of Hanley, Mr. E. J. Ridgway, met the Bishop of Lichfield in his own carriage at Stoke Station. The cemetery was considered to be the first important "mission" of the Town Council of the recently created borough of Hanley and on the opening day a portion, set apart for members of the established church, was consecrated by the Bishop. The cemetery, when completed, was to cost £13,000, the money being raised by a loan to be repaid within 30 years. The 20-acre-portion of the Shelton Hall estate in which it is situated, was purchased at a cost of £5,630 in April, 1858. The land was described as "being pleasantly varied by gentle undulations, while a large number of full-grown trees, in some places scattered and in others clustered together gives additional picturesqueness to the view." The chapels and lodges cost £2,598 under contract. Arranging the grounds cost £825. Mr. J. Hill, of Hilderstone, was to plant the ground for £105. The drainage and the making of the road and walls, in addition to railings and ornamental iron gates at each end of

the road, cost £1,800. The danger of pollution such as took place in the early churchyard burial grounds was carefully guarded against. The new cemetery was drained to 12 feet deep by main brick sewers, with auxiliary six-inch pipe drains at regular intervals. The chapels were constructed of Werrington stone, with dressings of Hollington stone, in a style transitional from the Early English to the Decorated Gothic. The iron gates were made by the Coalbrookdale Iron Works. The Cemetery Road was private and the gates were opened by the lodge keepers for funerals and for the residents of the few large houses in the road. As time passed these duties were neglected and the road became less private and after about 1926 the gates were no longer regularly closed. Despite notices the road then became a semi-public thoroughfare by vehicular traffic. The last time the gates at the Newcastle Road entrance were closed was after a severe air-raid during the last war when houses opposite the gates were destroyed by bombs and the resulting fires. After the war the gates were taken down and the road entrances widened.

Such was the interest in the new cemetery that in 1863 it was reported that "the clergymen and ministers found it difficult to get to the graves in consequence of the crowds assembling around them." The Hanley Town Council wished that the churchyard should be closed in favour of the new cemetery. This was opposed by the clergy and despite an inspection ordered by the Home Secretary in 1860, they were kept open for burial. Indeed, in 1862, no less than 300 children were interred in Shelton Churchyard, whilst at Northwood there was a higher number of burials. In 1864 only Shelton Church was carrying out the regularation that all new graves should be brick lined. In the centre of Hanley, at Brunswick Chapel, burials were taking place in April, 1864, in the graveyard which was composed of shraff and other open materials and within 4 feet of a house, but at Hope Chapel burials had ceased. In the cellar of one house, situated by the old churchyard at Hanley, foul matter had been washed from the soil of shallow graves. Burials at Etruria Church at one period continued at such speed that coffins were being placed within six inches of the surface. With burials taking place in the local churchyards only a little over one-third of the internments took place at the cemetery. Some idea of these church burials will be gained from the records of 1863 when the number of burials for the year were as follows: Shelton Church 134, Northwood 109, Etruria 64, Bethesda Chapel 55, Brunswick 7 and Providence 7. A total of 376 against 305 at the cemetery. At Bethesda Church, in Hanley, burials sometimes took place in the vaults under the chapel and each was said to be " securely sealed." When the doors of these vaults were opened the smell of the decay of mortal remains was very strong indeed. These vaults were occupied by past worthies of the church who still rest there. A further visit from the Government Inspector, in 1864, revealed that within three years all the churchyards in the borough would be closed. In fact the burial question was dealt with more speedily than had been expected for in December, 1864, the Rev. W. H. Parker, of Hanley, received a notification from the Home Secretary that burials were to be discontinued on December 31st, 1866, except in vaults and walled graves, in which case each coffin was to be embedded in charcoal and separately enclosed in stone or brickwork. This was to affect the churchyards of Shelton, Etruria and Northwood churches, Bethesda, Brunswick and Hope chapels in Shelton,

and also the Tabernacle and Providence chapels in Hanley. Later various dates of closure were fixed for the burial grounds of the churches of the six towns. At Etruria the extraordinary Reverend Topham, of which readers of "History of Etruria" may be familiar, applied to the Home Secretary for leave to use an additional burial ground at Etruria Church on a piece of land granted by the Duchy of Lancaster. Dr. Holland, the Government Inspector, visited the site with Mr. Topham and told him of the counter petition of the Hanley Council whereupon Mr. Topham "was very rude and abusive." Etruria did not obtain a new graveyard. Nevertheless Mr. Topham continued burials in Etruria churchyard in violation of the Order in Council, for which "he was called to book!" The Reverend Topham was not the sole offender in this direction. In April, 1882, the Rector of Burslem was prosecuted for a similar offence. The churchyards of St. John's and St. Paul's, Burslem, were closed by an order issued on October 25th, 1881; "except in, in such vaults and walled graves as were then existing or relatives might be buried in existing earthen graves where a depth of five feet could be obtained without disturbing existing coffins or remains." The case resolving on relationships was a technical one and after long court proceedings was not pressed to a conviction and fine.

One of the most extraordinary of these burials was that of a still-born child in the churchyard at Etruria in June, 1885, nineteen years after closure. Mr. Topham received a three-shilling fee for the burial of each still-born child, and the sexton, Thomas Tideswell, one shilling for digging each tiny grave. Mrs. Tideswell said that in the last four or five years there had been between 40 and 50 still-born children buried there. In this case she described the position of the tiny box coffin stating that: "There was no hole dug, but the ground was scratched." At the adjourned inquest on the body the surgeon, Mr. J. Charlesworth, stated that the burial certificate had not been collected from him. The Burial Board were instructed to take immediate action to prevent any future violation of the Order in Council at Etruria churchyard. On one occasion the Reverend Topham was fined £10—the full penalty—for such an offence.

The area in which the new cemetery was situated was still delightfully rural as late as 1881 when the surplus of the land at the bottom of the cemetery was let for the grazing of cows for fifty shillings. The cattle were looked after by a boy to prevent straying. In due course other cemeteries were laid out, Tunstall cemetery being consecrated in July, 1868, by the Bishop of Gibraltar on behalf of the Bishop of Lichfield on about seven acres of sloping ground at the Clay Hills to the west side of the town. Burslem cemetery, situated near to the Holden Bridge, was opened on September 28th, 1879, Longton cemetery in January, 1878, Fenton on May 16th, 1887 and Hartshill during 1883-4.

In November, 1891, the Town Clerk of Stoke was instructed to obtain a faculty for vesting the Lonsdale Street burial ground in the Corporation.

Gradually all the churchyards were completely closed for all burials and as generations passed on—became forgotten. Such a case was that of the original eighteenth century Congregational Church of Hanley, built in 1784. This church still to be found in Town Road, Hanley, has been used as a "Labour Church," a billiard hall,

For information see overleaf

1. The industrial beauty of the City of Stoke-on-Trent is there for all who see. The ancient village of Penkhull still retains its old-world charm as this 1957 photograph shows.

2. Sometimes the rainbow "ends" in the Potteries as this photograph, taken in 1957 at Twyford's Cliffe Vale, portrays.

3. Brook Street, Hanley (now Century Street) August, 1951. The buildings on the right have been pulled down. The street has a sinister aspect after dark.

4. A photograph taken on February 13th, 1956 at the Wedgwood works, Etruria.

5. Lord Street (now Etruria Road) Etruria, in February, 1956. Today, 1959, this scene presents a desolate waste.

midget golf course and, since 1931, as a roller skating rink. It was the demolition of the outer wall in February, 1931, which laid open to the street, then High Street, a long stretch of burial ground containing a large number of blackened tombs and monuments many well over one hundred years old. The graveyard of the church, which was the forerunner of the present Tabernacle Church, had been inaugurated by the Reverend James Bowen in 1784. By the mid-twentieth century many of the churchyards had fallen into decay and were being used as playgrounds by children. Vandalism was rampant. At Burslem and Hanley, mausoleums were broken open and in some cases attempts made to reach the coffins. One in St. John's churchyard was actually pierced at one end.

The first local funeral, in which the coffin was conveyed in a motor hearse and the mourners in taxi-cabs, took place in November, 1910. Crowds lined the pavement in Lamb Street, Hanley, to witness the departure of the motor-hearse—a combination of motor-car and ordinary hearse-car under the direction of Messrs. Huntbach—to Stoke, prior to the procession setting out for Thorpe Church, Dovedale. The body was that of Miss Lily Twigge who died at Stoke. It had been her dying request that motor-cars only should be used in carrying her body, and friends, to her final resting place.

In June, 1957, details were given of a scheme for the removal of remains from the St. John's churchyard Hanley, in connection with a new road and it is likely that the remains will eventually be buried in Hanley Cemetery. The attention of the City Council was drawn to the disgraceful state of many of the churchyards and much has been done by the Parks and Cemeteries Department, on the instructions of the Council, to assist the churches in the restoration of their churchyards. Some years before Alderman Horwood's death the graveyard at Etruria Church was made into a garden and the remaining tombstones—many of which had been broken or chipped by bomb splinters during the war—were laid flat on the graves they represented and soil and turf laid down on top of them. On Wednesday, July 4th, 1956, the Lord Mayor of Stoke-on-Trent, Mr. W. Bailey, cut a tape between the two gate pillars of Shelton Church and declared open the new gardens laid out at a cost of £5,000 in the churchyard. By these methods many of the old graveyards are being turned into pleasant and useful resting places for the living. In March, 1958, five generous schemes for laying out as gardens the churchyards of St. Paul's, Burslem, Christ Church, Tunstall, and St. John's, Longton, were being carried out by the City Parks Department. After these are completed a further consideration is to be given to the requests to take over the churchyards of St. John's, Burslem, Christ Church, Fenton, Hope Chapel, Hanley, Bethesda Chapel, Hanley, and St. John's Church, Hanley.

With cremation gaining in popularity the need for cemeteries in general is lessening and the new lawn cemetery, consecrated in January, 1958, by the Bishop of Stafford and forming part of the Bucknall Churchyard, is believed to be the only one in full use in the City of Stoke-on-Trent. Provision is here made for the burial of the ashes of cremation, but not the scattering of ashes which the rector of Bucknall, the Reverend E. K. V. Pearce, declares is a heathen custom.

In 1940 Lord Horder opened the Carmountside Crematorium. Here, under modern

conditions, coffin and body is burned and the ashes may be deposited on the Garden of Remembrance or taken away.

The City Superintendent Registrar, Mr. A. G. Willis, F.Inst.B.C.A., in his official report for the year ending December 31st, 1958, states that there were 1,918 cremations and 2,156 burials within the city. The income derived from these being £13,912 and £29,154 respectively. The Crematorium is used by Stoke-on-Trent, Newcastle, Crewe, Leek, Stafford and other areas. The ashes of the cremations were, in the main, placed in the Garden of Remembrance at Carmountside. In 1958 only 37 urns containing ashes were placed in graves. A further 211 were taken away by representatives and 13 placed in the Columbarium. The total number of burials in the city's cemeteries since opening to January 1st, 1959 is over 273,000 and likewise the number of cremations at Carmountside is 19,796.

Carmountside has also been in use as a cemetery since January 17th, 1947. In 1957 a mechanical grave cutter was brought into use.

The Hospitals

The history of the hospitals in the city is an extensive subject. It forms one of the the most vital aspects of the Sociological History of Stoke-on-Trent. In this work it is intended to present, as in all aspects of the book, a brief history of some of the main institutions leaving the more detailed account to specialists in each field. Much of the present history of the City is well recorded in the City Archives and in the records of the hospitals themselves, but little remains of any early records and each scrap of evidence that comes to light must be preserved, however incomplete, to provide vital links in any historical work of the future. These are the thoughts that have been ever in the mind of the author, finding that the passing of the years has resulted in the loss of so much information and pictures often turned out as so much refuse.

The North Staffordshire Royal Infirmary, the oldest hospital in the district, was started in a small way at Etruria Vale. Little is recorded of those early beginnings. We first learn of it as from July 28th, 1802, when the first meeting was called to discuss the establishment of a Medical Dispensary and House of Recovery in the Potteries. The latter portion of the eighteenth century (1775) had seen much sickness from epidemical fevers which spread with great rapidity amongst the poorer people of the district and in the work-houses for which there was no regular organised treatment. As a result of the efforts of a number of local surgeons and prominent manufacturers a meeting was called at the Swan Inn, Hanley, at which it was proposed to establish a Medical Dispensary and a ward for the reception of patients to be called a House of Recovery. The initial subscriptions amounted to £580 for building and £187 for the annual support of the institution. Over one acre of land was ultimately purchased from Mr. Josiah Wedgwood II at a cost of £370. This was situated at Etruria Vale, between the Cauldon and the Trent and Mersey Canal. The land was at this time open and healthy. The situation of the House of Recovery may be seen to this day approximately in the centre of the ground below the Bedford Street canal bridge on which the gas works waste liquor tank and bacteria plant stand.

When the house was built there was no Bedford Street and at this pleasant spot only the cry of the boatmen and the crack of his whip could be heard and little was to be seen other than the horses in the croft owned by Mr. William Astle. The infirmary building remained standing, although not in use as such, until 1867, when the house and land were purchased for £1,000 by the British Gas Light Company on which the company erected the second half of the gas works. The three-storey building, composed of a centre and one wing, was opened on May 1st, 1804. The first surgeons appointed were F. H. Northen, M.D., John Robinson, M.D., Richard Bent, M.D., Bernard Coombe, W. H. Smallwood and George Wood. Mr. Isaac Wild was the first resident apothecary and secretary at a salary of £40 per annum and Mrs. Mary Birch of Cobridge the first resident matron at £10 a year. As the building was not fully utilised as a House of Recovery a portion of it was fitted out as a general infirmary.

Between 1804-1813 well over ten thousand patients were treated in various ways, from vaccinations to fever cases. It was a pity that the House of Recovery did not have a longer and more useful life, but it was considered to be outmoded. As the building of the gas works was not started until 1825, nor Mr. Shirley's calcined bone-works until 1856, the fault could hardly be said to be due to industry. The main reason lay in the fact that it was proposed to add an infirmary to the dispensary and it was considered that the existing land was not suitable for this purpose. Also the old building stood in a somewhat hidden and isolated position with poor access. The road to it was via a rough declivity from the canal bridge to a lodge situated at the top of what is now known as Gas Lane, opposite to the Trionite factory and offices. As was later to be proved, it was invisaged that the old house would eventually be surrounded by industrial buildings. All these facts emerged at a meeting held at the Swan Inn, Hanley, on November 18th, 1814, when the question of adding an infirmary was considered. Such an infirmary could not be supported on less than £1,500 a year. Appeals were made to the colliers, pottery workers and all who earned 18s. or more a week, to contribute not less than 1d. a week and for those earning up to 7s. or less than 7s., a half-penny and one farthing each respectively. Mr. Josiah Wedgwood was the treasurer of the dispensary. Further meetings were held on Friday, December 23rd, 1814 and on March 10th, 1815, by which time matters had progressed sufficiently to permit proceeding with the erection of a new building.

A further piece of land of 6 acres was purchased from Mr. Wedgwood, at £200 per acre, with a further three acres to be leased for a period of ten years with option to purchase. The elevated ground was part of the " Wood Hills " and the building was erected at a spot approximately marked today by the garages of the P.M.T., motor bus company at Tinkersclough, and would probably overlook the middle of the land which Etruria Park now occupies. It was described as being " on the turnpike road leading from Etruria Wharf towards Cobridge." It was during this year (1815) that the Treasurer of the Dispensary, Mr. Josiah Wedgwood, suffered the bereavement of the passing of his mother, Sarah Wedgwood, wife of the illustrious Josiah Wedgwood, " Father of English Pottery " and founder of Etruria.

Before purchase it had been ascertained that there was a plentyful supply of water. In addition to the brook which flowed through Tinkersclough, a well supplied 1,700 gallons of pure water per twenty-four hours. The laying of the foundation stone

of the new infirmary was performed by Sir John Heathcote, the chairman of the committee, on July 3rd, 1816. Mr. Potter of Lichfield designed the building which cost £4,400, of which £500 was given by the Prince Regent from the revenues of the Duchy of Lancaster. A large number of people and a band assembled for the occasion at the Etruria Inn, later passed in procession through the lovely Etruria grove of trees to the site at the Wood Hills. On the stone being laid the freemasons sang the hymn, " Hail Masonary Divine," after which the procession returned to the Etruria Inn where by the order of Sir John Heathcote a barrel of ale was distributed to the populace.

It is interesting to note that at the time of the inaugural meetings in connection with this building in 1814, there was only one major hospital within a large area, namely, the Stafford General Infirmary. Here in an average week, that of the week of December 16th, 1814, 7 patients were admitted, 3 discharged and 54 remained in the infirmary. The new infirmary at Etruria was to accommodate 40 patients and " if required 70 patients." Opened on May 5th, 1819, the somewhat plain buildings, coated with Roman cement, were rectangular in design, the front being ornamented with a portico supported on columns over which were the words: " North Staffordshire Infirmary. Erected and Supported by Voluntary Contributions."

A legacy of £1,000 was received from the executors of Mr. John Rogers of the Watlands, Wolstanton (this house, the Watlands Hall, of which much of Wolstanton was its park land, was demolished in September, 1951). £100 of this sum was to be applied to an Accumulating Fund in support of the institution. A plan for this fund was laid down by Mr. John Tomlinson of Cliffe Ville (now St. Dominic's School, Hartshill) and the donations for this purpose for the first year, 1816-17, amounted to £432 3s. 0d. In the year 1947, one year after Royal Assent had been given to the National Health Service Bill, under which Act the Minister of Health became responsible for providing the whole of the Health Services for England and Wales and the taking over of all hospitals, the Accumulating Fund stood at £121,657.

The amount of land purchased from Mr. Josiah Wedgwood was over 11 acres at a cost of £2,383. Situated in these pleasant surroundings it was an average example of hospital construction of the period. There were, however, many serious defects in its arrangements. Only two baths were available for the use of the patients and the lavatories were ill-placed for convenient use, whilst the bed space in the wards was also inadequate. The operating room measured only sixteen feet by nine feet six inches. In this space operations were completed and it was apparently not unusual at this period for patients to sometimes receive the results of such work. Mr. Rupert Simms, a Newcastle bookseller and historian and author of Bibliotheca Staffordiensis at the age of eight (in 1862) had his right hand and left arm and hand mutilated by the cogs of a machine for making perforated bricks at a local brickworks. After an operation, which necessitated their removal, he was handed the gruesome remains in a bag, which, with his mother, he took to the clergyman at Longton church, who buried them by the wall of the church. By way of compensation he received from one partner of the brickworks a sixpenny piece and from the other threepence! The Infirmary existed for fifty years, and during its last

year, October, 1868, to October, 1869, 1,232 In-patients and 5,449 Out-patients were treated there.

Fever wards were added and opened in April, 1829. Three years later the tithes of the lands at the infirmary and the old dispensary were purchased from the Rector of Stoke-upon-Trent for the sum of £150, which would ultimately benefit the funds of the infirmary. On reading his second Septennial Report in October, 1833, in connection with the Accumulating Fund, Mr. John Tomlinson declared, "I wish no other inscription on my tomb than this—He was the Originator of the Accumulating Fund of the North Staffordshire Infirmary." In November of the same year the then remarkable sum of £895 was raised by a Music Festival held in Stoke Church during the day. During 1852 new wards, for the treatment of burns and scalds, were erected. This was in no small measure brought about by the many cases that came in from the nearby Shelton Iron Works later known as the Shelton Bar Iron Works, the furnaces of which had been first 'blown in' in January, 1841. There is little doubt that these same Iron Works, together with other industries that were advancing into Etruria, were the cause of the eventual removal to Hartshill. Subsidence caused by coal mining was having serious effect upon the building. Mr. Massey, a builder, of Burslem, reported that he had found numerous cracks in both exterior and interior walls and that there were very few rooms entirely free of such faults.

In July, 1861, Messrs. Ward and Sons, Architects of Hanley, reported that they found the whole of the buildings injured, apparently, by mining operations. Walls were out of the perpendicular and floors out of level. The walls and floors were at all angles but mostly to the eastward. There was over five inches difference in the levels of some floors. In addition the main sewer which lay under the floor of the passage in the basement, close to the wall of the cellar stairs and above the level of the cellar floor was cracked. This damage, occasioned by a crack in the heavy and massive portico of the building, allowed foul water and offensive effluvium to escape into the cellar. Twelve pounds of chloride of lime was used every day to keep down the smell.

Smoke from the numerous chimneys, from the sulphurous fumes from the calcining of ironstone and from blast furnaces and smouldering pit-mounds, together with noise, all played their part in rendering the location unsuited for health recovery. By this time (1860) an ever growing deposit of slag and refuse from the furnaces and collieries, which included the nearby Slippery Lane Pit, extended from 200 to 300 yards in the valley of Tinkersclough on the east side of the infirmary and within 150 yards of the building itself. The fumes from its glowing and smouldering sides were dangerous to health. Children playing on them were often overcome and brought to the infirmary where, with difficulty, they were restored to consciousness. This long mountainous mound has remained like an extinct volcano since the turn of the nineteenth century. It may well be remembered that it covered the ancient Bell's Mill and Pool and that after the First World War (1914-1918) great bonfires were lighted upon its summit and fireworks soared sky-wards on that wet but eventful night of victory, whilst the author, then a child, wistfully watched the scene from the bedroom window at the "Gas House." Later the mound was tunnelled and

gave safety during the air attacks of the Second World War, but this time a somewhat more sober populace gave no firework display on its barren heights. Today it is rapidly being cleared by the Corporation and this, perhaps the most remarkable of all Potteries refuse mounds, will soon have ceased to exist—a story for the unseeing eyes of generations to come. The scene then, in Etruria in 1861, was a picture of ever increasing decay and " many of the trees being dead or dying."

On January 3rd, 1861, a committee was appointed to look for a new site on which to build an infirmary and eleven were considered. As a spur to the new scheme, Mr. William Yates of Eastwood, Hanley, a former chief traveller for Mr. Ridgway of the famous Cauldon Place Works, stated that he intended to leave, on his death, £5,000 to the infirmary. To speed matters he was prepared to hand over this sum at once to the trustees of the infirmary, they undertaking to pay him £250 per annum for his life. These terms were accepted, but Mr. Yates died within a few days of signing the cheque, in October, 1862.

Two sites out of the eleven were eventually given final consideration, that of land at King's Field, Basford Bank, and land on the Mount Estate, Stoke, on the west side of the New Road looking towards Newcastle. At this time, 1862, Basford Bank stretched from Etruria Station in a rise to what is now Kingsfield Oval. The area was desolate with probably only the then thatched Queen's Hotel on the left and Basford Hall and Stoneyfields House estates on the right. The freehold land on the Etruria side was in the possession of the Newcastle and Potteries Villa Residence Society whose solicitors were Messrs. Slaney & Winstanley, and this was offered at £350 per acre, of which 22 acres of the estate were available. Dr. Garner opposed the Basford site " because it was likely to be surrounded by the worst class of buildings—houses raised by building societies. Two societies had laid on that spot, and the buildings which were raised by such societies were, in a sanitary point of view, of the very worst description." The majority were in favour of the Mount site of 15 acres of ground at £300 per acre. This estate lay beyond the boundary of the North Staffordshire Coalfields and was unlikely to suffer from mining operations. Even if such did take place they would be at such a depth as to be safe from the point of view of a building. There was, however, considerable doubt expressed at the special general meeting of the governors on Thursday, January 16th, 1862, and it was decided to delay the decision of purchasing a site. They did however sell a piece of land belonging to the infirmary at Etruria and lying between the Hanley branch railway and Mill Street at a cost of not less than £600 per acre and also land required by the North Staffordshire Railway Company, for the purpose of the Hanley branch railway, at a cost of £1,300. The scene in Etruria was changing rapidly!

Five more sites were inspected, for it was important a site be secured, for Mr. Yates had given the £5,000 on condition that a site was chosen before June 25th, 1862. Proposals were made and amended for the various sites to such an extent that Sir Lovelace T. Stamer, Rector of Stoke, said, " If there is to be a contest of amendments, it is a pity that they have not Lord Palmerston (Prime Minister) amongst them to unseat a few of the jockeys." Sir Lovelace himself preferred the Basford site, and Mr. Twemlow reminded him that this site had been requested

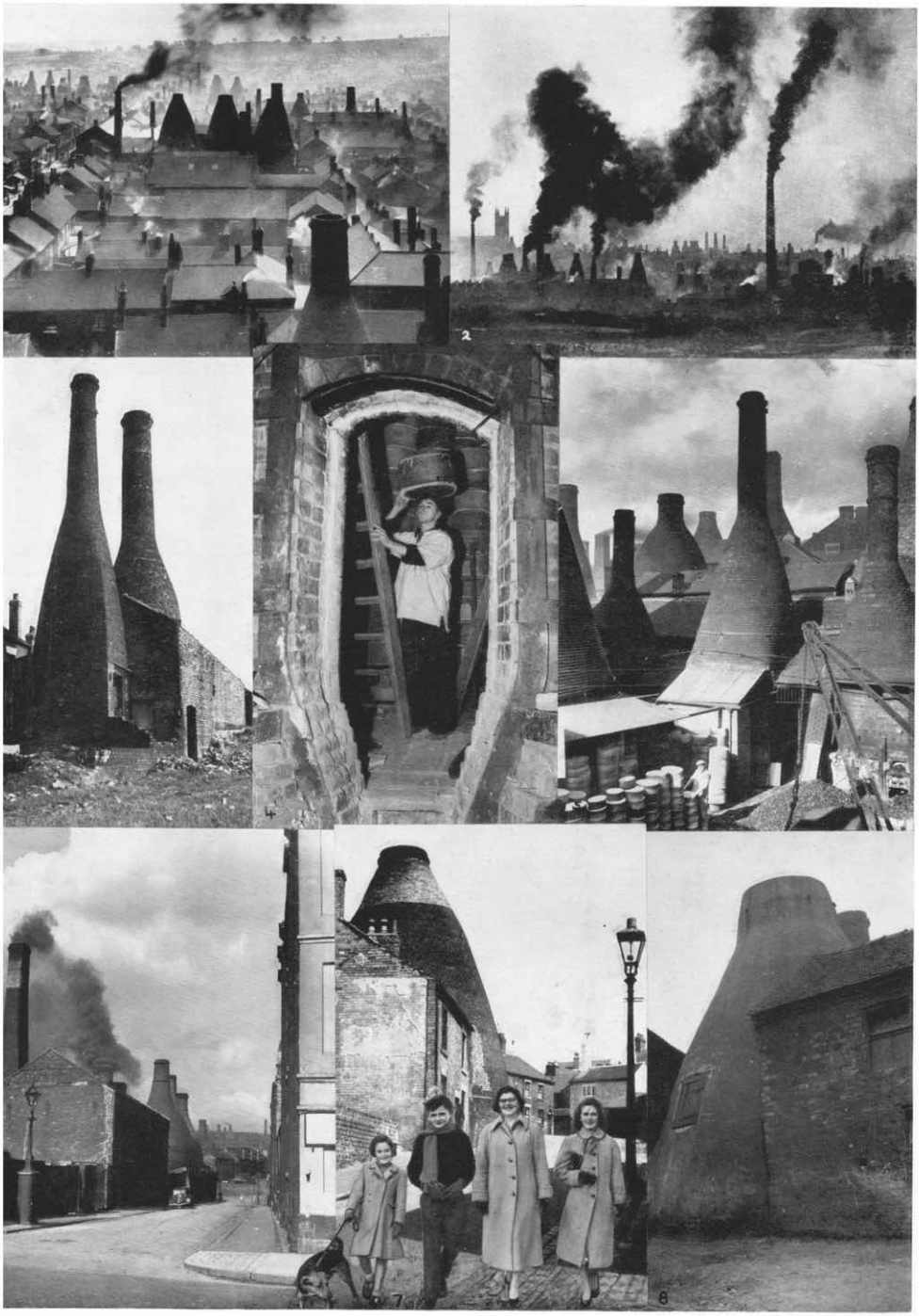
by a large majority and " That the few trees that grew upon it have been destroyed, whether by noxious gases or not I cannot say. The trees at Etruria are in a much better condition." Mr. G. Baker was also against the Basford site saying: " I have a farm in the neighbourhood and I have at times been almost blinded by the smoke from the brickworks." Mr. Baildon who was in favour of this site declared, " The hill at Basford Bank was no difficulty, for it was easier for the patients to go up hill than down hill." By such curious arguments, the fate of the siting of the new infirmary might be settled! Mr. Peake presented a sensible argument that the Mount site was the most suitable " because it sloped southward, was just above the red sandstone and had the best water in the country." The eventual voting was for the Mount 18, against 5.

Despite this decision being reached in 1862, the wrangle continued through 1863, for Mr. Bishop, the owner of the Mount estate, declined to make a road from Cliff Lodge to Hartshill, said to have been part of the agreement of the purchase of the land, but which Mr. Bishop had never pledged to make. By June 18th, 1864, the matter was still unsettled. The report of the governors, of April 14th of that year, showed that eight sites were still under consideration. A Copyhold site, still available, of 8½ acres of land located behind the toll-bar on the west side of the road from Stoke to Hanley (now Aynsley Road area) valued at £3,500 was owned by Mr. J. A. Wise. He had written a long letter of criticism on the way in which the Mount site had been decided upon, and asked, " Was the resolution adopting the Mount site, passed at the meeting of June 19th, valid and in accordance with the statutes? However, this land held in Mr. Wise's name was offered at the request of the hospital committee. Also by this date (April, 1864) three of the eight sites were new ones which had been made available. That of Mr. F. W. Tomlinson consisted of 13 acres of freehold land exempt from tithe, at Hartshill, on the north side of the road from Stoke to Newcastle, and formed part of the Cliffe Ville Estate, Other sites were eight acres of Copyhold land near Hanley, owned by Mr. R. Stevenson and between 10 and 15 acres of freehold land with mines reserved by the Duchy of Lancaster at Basford on the north side of the road from Etruria to Newcastle, and forming part of the Basford Hall Estate owned by Mr. W. E. Twigg. One feels that the mention of these sites in some detail is not out of place as they present a picture of these districts in the last quarter of the nineteenth century and show us that a considerable portion of the Potteries was rural countryside until a comparatively late date. The April report declared that Mr. Twigg's land at Basford Hall was the most suitable site saying, "The wall and plantation adjoining the turnpike road form an excellent boundary to the property and is sheltered from easterly winds . . . by tastefully planted trees." (This wall and a few of the trees can be seen to this day from The Avenue to Lower Oxford Road.) On this land " there is a spring of water . . . . and excellent facilities for drainage." Also this site was recommended on the assumption that " a project for cutting a road from Hartshill to Wolstanton will be carried out." Unfortunately the Duchy of Lancaster declined to enfranchise the mines under the Basford Estate, thereby nullifying the chances of this delightful estate being used for the infirmary site. The Mount site had one especial feature—the mines and minerals were purchased by Mr. Bishop from the

Duchy of Lancaster—a feature that would prevent the likelihood of subsidence. Also its greater elevation, quietness, its distance from chimneys or industry, its excellent springs and drainage, together with good soil were all important points in its favour and it is not surprising that it was eventually chosen in December, 1864, despite objections from subscribers in the northern end of the Potteries, at a cost of £300 per acre. At the meeting it was announced that donations (exclusive of the £4,500 already in the treasurer's hands) amounted to almost £3,000—a good sum, especially when it is recalled that five-sixths of the governors had left the room before the subscription list was opened! The cost of the building was to be £20,000. It eventually cost £26,964.

In April, 1865, plans were sanctioned by the Building Committee of the proposed infirmary. The principal frontage was to have a western aspect looking towards the Clayton Hills, the line of frontage being bounded by the footpath which ran through the site. The hospital was to be approached by the 'new road' from Penkhull to Hartshill. A well was to supply water raised by a pumping engine and the soft water from the roofs was to be collected and used for baths, lavatories, wash-houses, etc. Heating was to be by open fire-places and sewage by a new sewer to be laid to the public sewer in the Newcastle Road. Miss Florence Nightingale was consulted on the layout and the pavilion style adopted. The main building was designed for the accommodation of 160 beds and the fever wards for 20 beds. The architects were Mr. Nicholls, of West Bromwich, and Mr. C. Lynam, of Stoke. The builder was Mr. A. Barlow, of Longton, who undertook the whole of the work including the making of roads for about £34,000. The land cost another £3,000.

The foundation stone was laid on Monday, June 25th, 1866, by H.R.H. Albert Edward, Prince of Wales (later King Edward VII). The weather was excellent and a public holiday was declared in the Potteries. Very large crowds lined the ceremonial route while church bells rang. The route from Trentham Hall, where the Prince and Princess were staying, was gaily decorated with beautifully constructed arches displaying a profusion of banners and flags. The Royal party was cheered almost continuously along the route. In Stoke almost every house in the main streets carried flags and flowers. The effect was such as is rarely witnessed today in Stoke-on-Trent. At 12.45 p.m., a large body of cavalry passed through Stoke, followed by an open carriage in which were the Prince and Princess of Wales. Ascending Hartshill Bank the Royal party was greeted by about 10,000 children assembled in a field on the left hand side of the road. The foundation stone was laid by the Prince before a vast gathering and beneath it were deposited two sealed glass bottles containing a collection of the current coins of the realm and copies of *The Times, The Staffordshire Advertiser* and *The Sentinel* newspapers and a document giving names and details of the ceremony. It was said that such was the excitement that upwards of £1,400 was actually laid on the foundation stone. One contribution, that of the workpeople of Josiah Wedgwood & Sons of Etruria, was presented in an elegant jasper vase. In addition a bronze medal was struck to commemorate the occasion. On one side was portrayed a woman attending to the needs of a sick man whilst the obverse side showed the main entrance of the infirmary with its many steps. Both sides were also suitably inscribed.



For information see overleaf

1. Mr. W. J. Blake's picture of Longton in the direction of Meir.

2. Longton study by Mr. Blake at the turn of the nineteenth century. Unretouched, it illustrates the deadly smoke problem. In 1911 George Bernard Shaw on seeing the Potteries said: "If chimneys smoke like that you will have a large graveyard."

3. Unique "Bottle Ovens," at Edensor, Longton in 1955, just before the vast slum clearance in that area.

4. Placing saggars containing pottery into a "Bottle" (or Intermittent) oven for firing. Ware can only be removed when the fire has burnt out and the ovens have cooled down.

5. Typical Potteries scene, about 1900.

6. Smoking chimney at Zion Street, Burslem. The recent Smoke Restrictions Act is helping to make the Potteries free of much of the smoke from industrial chimneys.

7. A huge "bottle oven" dominates this scene in a Longton street.

8. Ancient oven in what was Church (St. John's) Passage, Burslem, photographed in 1930 by Mr. S. K. Smith. It was said to have been part of Wedgwood's Church Yard Works at Burslem. Alterations in the surrounding buildings at this date revealed an old chert stone (used for grinding) and a brick bearing the date 1760.

The building was opened on December 16th, 1869, by the Duchess of Sutherland. At this time the Infirmary contained 184 beds, whilst the old Infirmary at Etruria had a maximum of 125. Individual bed space was increased from 710 to 1,630 cubic feet per bed. The number of fire-places for heating had been increased from 53 to 110. Both Infirmaries had been lighted by gas, but whereas the old building only contained 50 gas lights (bats-wing type) the new contained 262 lights. It was not unusual for operations to take place at night with the aid of wax carriage candles in the old building. The number of officers, nurses and servants had been increased from 31 to 53.

At the old Infirmary the nurses under Miss Derry, the matron, were untrained. It was said of her that she was a prim old lady, kindly, but wanting in authority. In the early days operations took place without anaesthetic (chloroform). Surgeons also had to be called for by messenger and cab as none were resident. Some of these surgeons had their own whims and fancies. Mr. W. D. Spanton, F.R.C.S., in "The Story of My Life," says of the celebrated local physician, Mr. Robert Garner, "He was a very careful and neat operator, but he ignored asepticism, for he once told me that in his private work he used only one set of knives for everything. He would have made a better surgeon if he had been less of a scientist and naturalist." Mr. Spanton admits, however, that he himself, in 1865, set to work to form a Naturalists' Society! This was the North Staffordshire Field Naturalists' Club. Nevertheless when Robert Garner died, in 1891, at an advanced age, Sir Oliver Lodge wrote of him: "A serene, peaceful life it was; a kind, good old man." It was Mr. Lodge, later to become Principal of the Birmingham University, who gave exhibitions of electrical illuminations (then new to the Potteries) at a bazaar held on October 6th-9th, 1868, at the Infirmary which raised £3,600. The Garner Medal, awarded by the North Staffordshire Field Club, is a memorial.

Whilst the Infirmary on the "Wood Hills" at Etruria was doing its good work, the North Staffordshire Medical Society came into being in the year 1856. It continued with various degrees of success. At one flourishing period, 1878, it had its headquarters at Mr. Spanton's home, Chatterley House, Hanley. Spanton tells us that his friend, Mr. Oliver Lodge (father of Sir O. Lodge) who lived at Chatterley House advised him to take it and kindly helped him to secure it. The place was riddled with wires which had been used by Sir Oliver Lodge in his earliest experiments when he was working for a London Degree. The house still stands, having been used as Corporation Flats, but now that it is empty its days seem numbered. It stands opposite to the Hanley Fire Station in Old Hall Street, Hanley.

The new Infirmary at Hartshill brought improved conditions in housing of the patients and better treatment with the advance of medical knowledge, but after the glamour of the stone-laying and opening had died away, there was still a vast amount of work to be done. One-fifth of the in-patients were accident cases in 1866 and these were transported to the infirmaries in open carts—sometimes lined with straw—the groaning victim lying there for all to see. In fact, to quote: "The unfortunate sufferer was jolted several miles, over bad roads, in a common coal-cart." The governors of the Infirmary suggested that each town should have its own ambulance (horse-drawn) and that large iron-works and collieries should have their

own. Another complaint, in 1869, was the curious case of the fever patients at the Infirmary. When one official wrote, "Often when going amongst the fever patients . . . . and asked to sit up, they replied they had got no clothes." This arose from the curious fact that fever patients, "are generally the most wretched that are admitted; indeed they are almost the only ones that seem to be in abject proverty. The miserable tattered rags which barely cover them when admitted are in such a state of filth, and so impregnated with vermin, that they must be placed in an out-building until the patient is able to leave hospital." This bears out much that has been written earlier in this book and also the tragic necessity of allowing the patient to don the disease-ridden garments again. The governors appealed for the cast-off clothing of "benevolent friends of the institution" to be sent to the Infirmary. Fever and smallpox were so prevalent that in May, 1871, the Medical Officer called attention to the efforts then being made in the other towns to induce the committee of the Infirmary to set apart the old institution at Etruria as a smallpox hospital for the entire district. This was strongly objected to by the Mayor and Corporation of Hanley, a Borough at that time free of the dreaded disease, and a motion deploring the suggestion was carried. In addition, so dangerous was the state of the old Infirmary that only a very small portion could have been used.

The first part of the Infirmary to be used was the Smith Hill Child Memorial building, dedicated by Sir Smith Child, Bart., in memory of his eldest son, by a gift of £1,000, was opened in 1867 followed by the general opening ceremony in 1869. This building was lent, in 1872, to the Staffordshire Institution for Nurses; was later adapted and opened, in 1878, as a Children's Hospital, and in 1947 formed part of the Pathological Department. In 1885 the telephone was installed and the Infirmary was in telephonic communication with the six towns. In 1888, and later, further land was purchased from Mr. Bishop making the Infirmary an estate of over 24 acres. From this date many new additions and innovations have been made. Some of the most noteworthy are as follows:—

1889: The Victoria Wards, originated by Mr. Spanton and costing £961 were opened, and at the time of the National Health Service Bill, in 1946, were in use as Children's Wards.

1890: The words, Eye Hospital, were added to the title of Infirmary. 1892: witnessed a new ward for the reception of Female Surgical Cases, followed one year later by the heating of the buildings by means of low-pressure, hot water pipes and radiators.

In 1900 an entirely new system of draining the Infirmary was carried out and in 1901 a small Isolation Hospital was erected on the east side of the buildings.

In 1901, the Hospital Committee approached the Potteries Electric Traction Company with a view to obtaining electric power from their mains for use at the Hospital. This was granted and was of immense use in the new Electrical Bath treatment of lead-poisoning for which the Duchess of Sutherland did so much pioneer work. Conferences were held at Trentham Hall under her patronage with the result that this important department was opened by the Duchess in June, 1902. The need for sleeping accommodation for the nursing staff was of course becoming more difficult and plans were laid out to build a nurses' home. The foundation stone was

laid on October 24th, 1902, by Lord Dartmouth, with Masonic honours, and so the contents of a cornucopia, containing corn, and ewers filled with wine and oil were strewn over the stone. The home commemorated the coronation of King Edward VII and was built at a cost of £5,407 by Mr. John Bagnall, of Fenton. Covering an area of 198,328 cubic feet measured from the bottom of the footings to the centre of the roof, it was opened by the Bishop of Shrewsbury on May 17th, 1903. A further wing was added in 1912-13 at a cost of £3,000. So at the turn of the century important changes were taking place at the Infirmary. The building of the first section of the Nurses' Home (the extended building of which we know today) gave an indication of the increase in the staff. At the onset, in 1868-9, the number of in-patients was 1,232 and the staff varied between one nurse with assistant for 44 beds to one nurse and assistant for 21 beds. There was a male nurse for the accident ward which contained 9 beds. In addition there were two night-nurses for the whole of the wards. By 1890-91 the number of in-patients had increased to 2,047 and the total number of nurses, assistants and ward maids was 55, a number which continued to increase. By 1924 there were over 300 beds and about 200 members of the staff. One of the longest serving and notable Matrons was Miss Jane MacMaster, appointed after Miss Pearse, Superintendent of Nurses, had resigned. Miss MacMaster was Matron from 1905-1930. In the chapel and to her memory a sanctuary chair, a silver chalice and paten are to be found, dedicated in 1947.

In 1905 electric light replaced the gas light. During the same year an internal telephone system was installed.

On July 7th, 1911, four foundation stones were laid to the new Out-Patients Department—one of them by the notable surgeon, Mr. W. D. Spanton. The cost of the building and equipment was about £12,000. This department came into full use in 1913.

In 1914 a new operating theatre was added—a timely need—for during the first year of the 1914-18 War, 500 wounded soldiers were received into the Infirmary, in addition to the 2,850 civilian in-patients and 20,000 out-patients. Huts were also erected in the grounds to house war casualties and by 1916, 175 military beds were fully occupied. A total of 2,562 soldiers passed through the Infirmary during this war. In 1917 the F. J. Harrison Memorial Recreation Hut was erected next to the Out-Patients Department, followed in 1923 by the Harrison Auxiliary Ward (Ward 8) which permitted a further 24 beds and additional accommodation for nurses.

On June 5th, 1925, King George V laid the foundation stone of the New Medical Block and acceded to the request that the Infirmary should be known in the future as the North Staffordshire Royal Infirmary. Under the stone was laid a sealed casket in which a commemorative copy of the Weekly Sentinel newspaper and other items were placed. Among these items were Ralph Hordley's history of the Infirmary, an envelope containing a £1 note, given by an anonymous subscriber, a gold sovereign, some silver coins and a list of the names of members of the staff. A further casket was later laid in the structure with newspapers containing reports of the ceremony. The mallet used at the opening ceremony was the same as used by the Prince of Wales in 1866. It had also been in use at a number of other important stonelaying ceremonies in the district.

The new block, which comprised X-Ray and Orthopaedic Departments (Twyford Memorial), a Male Medical Ward (H. J. Johnson Ward), a Female Ward (Matilda Burgess Ward) and further extensions to the Nurses' Home, was opened in October, 1927, by the Duke of Gloucester. The cost was £150,000. By this time the annual income of the Infirmary was over £50,000. At the time of the take over under the National Health Scheme it was almost £168,000. From the opening of the Infirmary to June, 1925, 125,000 in-patients and over 758,000 out-patients had been treated at the Infirmary. Between 1927 and April, 1948, the date at which the Infirmary was actually taken over by the Minister of the National Health Service, many more additions and improvements had been made. The most important of these were as follows: 1928—No. 2 Operating Theatre opened. 1930—New Board Room and Offices completed. 1932—New Surgery and Casualty Department opened. 1933—Private Patients' Department (33 beds and Operating Theatre) in use. 1935—Edward Corn Ophthalmic Ward opened and Wards 1 and 3 reconstructed. 1937—G. H. Downing Radiological Department opened by the Duke of Kent. 1939—Enoch Houghton Medical Wards (60 beds) being constructed.

When World War II began in September, 1939, the hospital was evacuated and placed on a war footing. At this time the Infirmary contained 462 normal beds and over 352 emergency beds. In 1951 a review of the Hospital Services gave the number of nominal beds at 515 and this figure included the Betley Court Rehabilitation Centre. On June 27th, 1940, Lord Horder opened the Pathological and the Haughton Wards whilst the Countess of Harrowby opened the Nurses' Home extensions. Unfortunately the new Nurses' Home was struck by a high explosive bomb two nights later and extensively damaged, but there were no casualties. The damage, estimated at £10,000, cut off the new Medical Wards from the main buildings and the Eye Theatre was destroyed in addition to a section of the new Nurses' Home. 1941 saw the erection of a new Administration Department, complete with offices and committee rooms. The old Administration Department was adapted as a central dining room for all staffs.

During World War II 340,200 patients were treated, including over 3,000 sick and wounded servicemen, air-raid casualties and other workers, and over 99,000 operations were performed. In 1957 the need for new operating theatres was made startlingly urgent by the sinister finding of dreaded tetanus spores in the main theatre suite. The closure of this followed the death of two patients who were operated upon in February, 1957. It was estimated that the cost of the new twin operating theatre would be at least £50,000.

The new theatre suite was opened on January 23rd, 1959, by the Chairman of the Birmingham Regional Hospital Board, Sir Edward Thompson.

At least two hospitals within the city boundary have been in their early years Poor Law Institutions or Work Houses. These are now known as the City General Hospital and Westcliffe Hospital (Chell). Both of these have been Workhouses, the latter once known as the Bastille. The City General Hospital, formerly known as the London Road Hospital, is now a large hospital, modern in every way. Indeed at the time of writing (1958) it might be fairly said that the standard of treatment and care of the patient has never been higher than under Miss E. Browne, the Matron of the

hospital. This has not always been the case. In far off years the " Hospital " was originally a Poor Law Institution—a combined workhouse and workhouse infirmary —under the administration of a Board of Guardians. When such Boards were abolished it came under the Public Assistance Committee of the Stoke-on-Trent Corporation, and then in 1929 under the Health and Hospitals Committee of the Corporation.

It had its beginnings at Penkhull in a large building opposite to the schools at the corner of Trent Valley Road, formerly Trentham Road, and was under the mastership of a Mr. Bagnall. Some time after it ceased to be used as a workhouse it was converted into dwelling houses. In 1832 the first part of the present buildings were erected near to Newcastle, near the site on which had once stood the Hospital of St. Loys. This ancient building, of which no trace remains, stood at the bottom of Grindley Hill, now Newcastle Lane, where it joins the London Road at Newcastle. This point was, in 1848, known as Knappers Gate. This hospital was " attached " to Stoke Church. It was in the care of a priest known as the Master of the Hospital of St. Loy, who received, in 1646, a yearly rent of £2/13/4 from the tenant who rented some of the land belonging to the hospital. Little is known of this building or who founded it, or for what particular purpose, although it may have been a leper hospital. Saint Loy, St. Eligius or St. Elay was a French Saint. It is thought that the once ancient stone building may have later been used as an almshouse.

The Workhouse-Hospital may be said to have been erected on land known as the " Spittals " in 1832 several hundred yards nearer Newcastle than the Hospital of St. Loy. The word spittals is a contraction of the word hospitals. The workhouse, which was built to accommodate 270 inmates, comprised one large block being separated by the Master's and officer quarters and dining-hall into two portions for men and women. Two smaller buildings accommodated boys and girls, whilst other buildings accommodated old men and children. There was also a bake-house.

An old factory which stood on the site was put into use as workshops, stables and laundry. On the west side of the buildings were wards and cells for tramps, both men and women. There was also a well to supply water. Ten years after it had been opened it was found that many of the people who sought admission were in a poor state of health and often unable to work to assist with their keep. Therefore, in 1842, the Guardians built and opened a hospital (to the east of the older buildings) which was called the Stoke-upon-Trent Parish Hospital. It was capable of accommodating some eighty patients. In 1866 a school for 250 pupils was opened and was in use until about the year 1897 when the children attended local Board Schools which received 6d. per week for each child paid by the County Council. The Workhouse school was then used as living accommodation until all the children over the age of three years were transferred to the Penkhull Cottage Homes. Also in the year 1866 a chapel was opened on November 16th, in which 400 people could worship. Further additions were made to the hospital section of the Workhouse in 1870 resulting in its having a capacity for 145 persons. In 1884, hospital wards for female inmates and a section for males was added to house 165.

The new hospital was called the Infirmary and chronic cases were treated in it. In 1902 the original Workhouse Hospital was housing 130 aged men. In addition,

until 1894, cases of lunacy were treated in the old section of the workhouse. These cases were then transferred to two new blocks for male and female cases of lunacy, the most serious of which were taken to the Cheddleton Asylum. In the year 1902 the Infirmary had one resident medical officer, a visiting doctor (Dr. Wheelton Hind) and sixteen nurses who lived in the different wards. A nurses' home was erected and opened on September 18th, 1902, able to house 30 nurses.

The City General Hospital, as we now know it, was first a workhouse, then a workhouse and hospital combined. How it compared with the Chell (Bastille) Workhouse one can only guess. One finds few records which indicate the degree of severity which was found at Chell in the early years in dealing with the inmates. Indeed, at the close of the nineteenth-century when such places were becoming more humane, one finds that " Entry to the Stoke-upon-Trent Workhouse " meant one's clothes being taken away, thoroughly disinfected and placed safely away for further use while the new inmate was given a hot bath, a clean night-gown and " the applicant is shown to a good bed in a room where about twelve can be accommodated." Next morning he or she was examined by the doctor and the case thoroughly discussed by the Board of Guardians who allowed the applicant to become an inmate if they thought fit. Tramps wishing to use the workhouse had first to obtain a ticket of admission from a police station and were then allowed to enter at 6 p.m. He too shared the luxury of a hot bath and disinfected clothing in addition to the night shirt, three quilts and a straw pillow! Supper for new arrivals consisted of 8 ozs. of bread with water. He was then taken to his sleeping cell, which was lighted by gas (bats-wing burner) with the governing tap outside the room. In addition, from about 1900 onwards, the " knight of the road " had an electric bell which he could ring if anything important was required, for he was locked in.

Breakfast consisted of 6 ozs. of bread, and one pint of gruel or 8 ozs. of bread with water, after which the tramp was confronted with the task of breaking 10 cwts. of stone. This task was carried out in a cell at the rear of the one he slept in. The stone had to be broken into pieces small enough for him to push through a grating in the window of the cell. In the early years of the Workhouse System the tramp was only compelled to stay one night and to break 3 cwts. of stone in the day. If the tramp was too old for this work the alternative was to pick 3 lbs. of oakum. Dinner consisted of 6 ozs. of bread and $1\frac{1}{2}$ oz. of cheese followed by the supper already quoted. Tramps were permitted to sleep two nights in the Casual Ward after which they left in the morning in search of another workhouse, there to spend another night or two on their almost endless journey. Habitually easy-going, the tramp did not care for the hard work and the two night system and 10 cwts. of stone to break reduced the number of " callers " at the workhouse in one year from 15,320 in 1900 to 1,680 in 1901, when the old system was changed to the new!

Women casuals were required to pick 2 lbs. of oakum and were often helped by some small addition of clothing for themselves or the children, for it was not uncommon for families to seek the shelter of the workhouse as a residence or a temporary home for short periods. Inmates of the workhouse, other than those sick in the workhouse infirmary, had to do work daily. Such days started with breakfast (one of four meals) at 7 a.m. with lunch at 10 a.m. to 11 a.m., dinner was from 12 to 1 p.m.

and supper at 6 p.m. The aged men were given 1 oz. of tobacco per week and the aged women 2 ozs. of tea and 8 ozs. of sugar. These latter conditions applied in the opening years of the twentieth-century and the harsh rules, referred to earlier in this chapter, were no longer enforced. Concerts and quiet amusements were provided and inmates might worship as they wished. In the early years of the workhouse the pauper inmates who died were buried in Stoke Church-yard, but in 1868 a piece of ground was consecrated near to the workhouse by Bishop Selwyn as a burial ground for the inmates.

In 1902 it was decided to demolish the old Parish Hospital, of 1842, and to build a dining hall capable of seating 500 on the site, complete with kitchens, etc. From this date the workhouse continued to change and new methods of procedure were employed.

On April 1st, 1922, the amalgamation of the Stoke-on-Trent, Wolstanton and Burslem Unions took place. It was realised at this time that the re-organisation of institutional relief and classification of indoor poor as between the London Road and Turnhurst (Chell) Institutions was essential, and in April, 1923, a scheme was completed. In it, all cases requiring medical and surgical treatment or nursing, including the chronic bedfast and tubercular patients and certified mental cases, were to be treated at the London Road Institution (City General). For this purpose the building known as "A" Block was to be converted into a hospital. Ministry of Health inspectors advised against this and suggested a new building which they said "Would form the nucleus of a new infirmary on modern lines and which would ultimately form part of a complete modern infirmary." Thus it might be said that in July, 1923, by this decision that the City General Hospital we know today was born. Resolutions were made and submitted by the Board of Guardians to the Ministry of Health. On September 30th, 1925, a meeting of the Board was held at which a report was submitted by Dr. F. W. Ellis, Chief Medical Officer of the Birmingham Union, who suggested that a new hospital should be built at the London Road Institution and the conversion of the old hospital there and at Turnhurst be converted into infirmaries for the chronic sick and bedridden. The new building should be an acute hospital (of which it is now one of the foremost) and provision made for maternity cases. Also he suggested increased isolation for children's cases and an entirely new nurses' home, in addition to the condemning of the block for the male and female infirm and the majority of the old house block together with the isolation and maternity block. The report of Dr. Ellis was accepted and over 6 acres of ground were purchased on the Hartshill side of the Institution on April 1st, 1926, at a cost of £2,400. The first of the proposed buildings consisted of two three-storey ward pavilions with accommodation for 180 medical and surgical cases, with a central administrative block and an isolation block with fifty beds, a children's hospital with 44 beds and a nurses' home to house 150 nurses. The cost was to be in the region of £185,000.

The ensuing thirty years were to see full realisation of these schemes. Today this hospital contains about 964 nominal beds of which 46 are for chest diseases. The chronic type of hospital patient is cared for and has the use of about 158 beds for this purpose. It is the main maternity hospital, and has 58 beds. The out-patients department was established in 1948. Although it has still some obsolete buildings the vast

improvements and adaptations carried out by the Buildings Sub-Committee has resulted in the present success of the hospital and these adaptations have included an X-Ray deportment, operating theatres, mortuary, dental clinic and out-patient departments. In addition it was reported in January, 1959, that a building to accommodate a theatre with ancillary services, a suite of six labour rooms and twenty beds is to be added to the maternity block within the next twelve months.

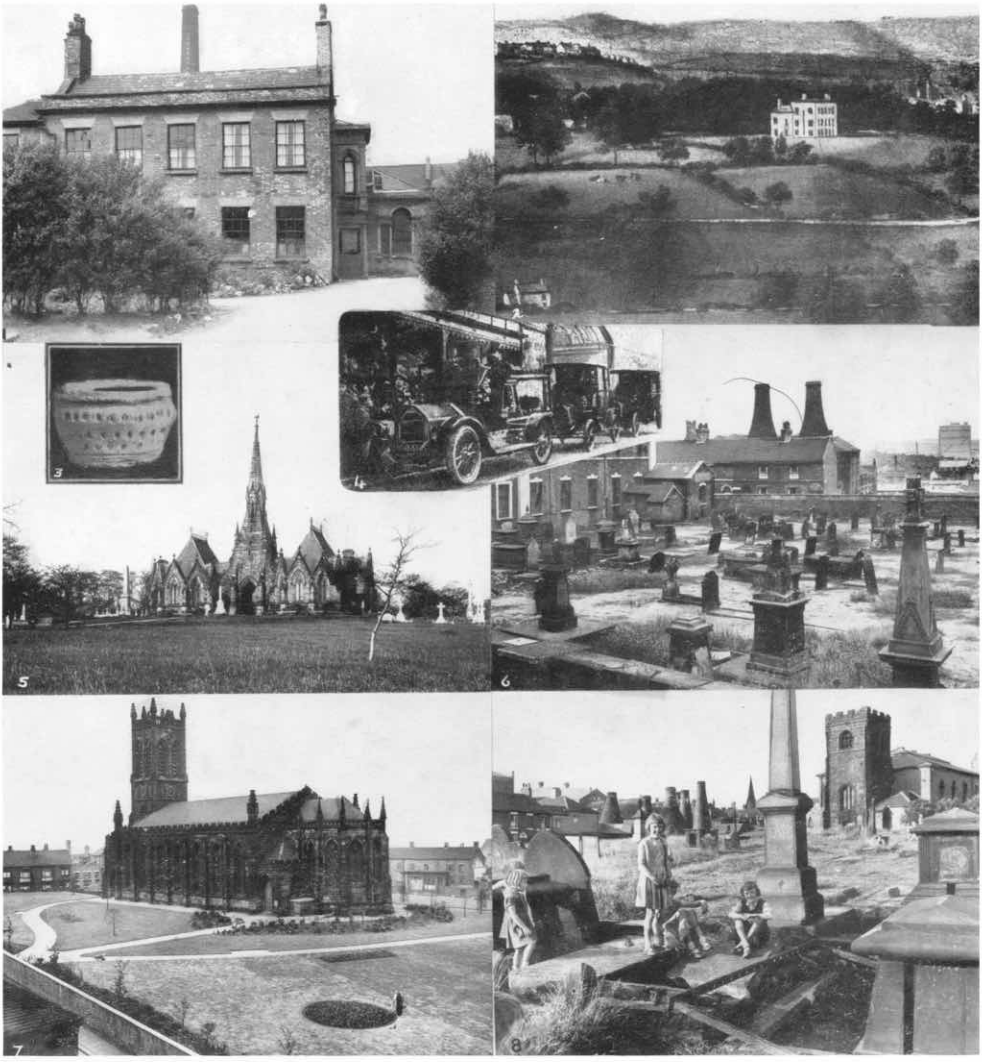
The City General had originally the only recognised school for training assistant nurses in the hospital group. Despite all this there is still an urgent need in North Staffordshire for new operating units and accident departments. In this direction the Stoke-on-Trent Hospital Management Committee is doing all possible and the sum of £111,550 spent since nationalisation in 1948 of the hospitals, by the Regional Board in the Stoke-on-Trent group up to March 31st, 1957, was considered a modest outlay. Capital schemes submitted to the Regional Board for future developments of hospitals in North Staffordshire total £1,181,550.

The record of Westcliffe Hospital (the " Bastille," " Chell," Turnhurst Road Institution) is similar in history to the early City General Hospital though, if we are to believe earlier records, more forbidding.

Renamed Westcliffe in 1948, it was originally a Poor Law Institution or Workhouse which was controlled at different stages by the Wolstanton and Burslem Board of Guardians and later by the Stoke and Wolstanton Board of Guardians, until, in 1930 the City Council took over its administration. It still serves many purposes for which it was originally built, that of caring for the aged and sick and for the ever diminishing number of tramps. Westcliffe still has its casual ward known as a reception centre. In a more humane atmosphere the old system is carried out. Beds are still provided for male or female temporary " visitors " (casuals). These individuals are asked to pay for their night's lodging if they have money, a request that is greeted with a look of astonishment or mild reproach. Such lodging has therefore still to be paid for by comparatively light work. To such an extent has the " knight of the road " disappeared that there are seldom more than six or ten for any one night—the average being two or three.

As a hospital Westcliffe has 213 nominal beds for chronic sick cases. Residents at Westcliffe pay for their keep according to their means for many are in receipt of a pension. Work is found for those able and willing to do so for which they receive a small payment in addition to tobacco and sweets which are provided. As in other local hospitals television and entertainments are provided from time to time by voluntary organisations. Due to the large number of residents, administration and ownership of the establishment was allowed to remain in the Stoke-on-Trent City Council, but the local Hospital Management Committee who control the hospital section, medical and nursing staff of Westcliffe, pay the City Corporation a sum of money for the services provided. Set as it is in a comparatively rural area Westcliffe has its own farm. Its gardens, especially the flower gardens for which a former " master," Mr. J. Budden, did so much, are the pride of the neighbourhood.

Of the remainder of the five main hospitals in North Staffordshire, all of which were run voluntarily until taken over by the State in 1948, Longton may claim to have one of the oldest.



For information see overleaf

1. The White House, Broad Street, Hanley (site of the Mitchell Memorial Youth Centre). The old house had been a private residence, dentists' and doctors' surgeries. It was here, in December 1868 (and not 1858 as stated on page 335) that Nitrous Oxide Gas was first used in the district by the dentist Mr. J. S. Crapper.

2. Shelton Hall, about 1825 (demolished March, 1959). In the foreground is the then lovely Fowlea Brook above which is the canal. Top left is Shelton and Shelton Old Hall and to the right the Cauldon Pottery. A new one-storey building is to be erected on the ground on which Shelton Hall stood. It is to house an adult training centre for the mentally handicapped. To inaugurate this scheme Alderman Mrs. B. E. Meakin, Chairman of the City Mental Health Sub-Committee, turned the first turf on Monday, January 18th, 1960.

3. A pre-historic Cinerary Urn found at Penkhull and thought to be of Celtic origin.

4. The first all-motor-car funeral in the Potteries, leaves Huntbach's, Lamb Street, Hanley, in November, 1910.

5. Hanley Cemetery on the Shelton Hall Estate, about 1900.

6. Bethesda Chapel graveyard. Hidden by high walls few know of this burial ground the headstones of which record a century of local biography.

7. Shelton Churchyard in June, 1956. It is an excellent example of a tidy graveyard, the result of the co-operation between the church officials and the City Parks and Cemeteries Department. Penkhull Churchyard was the first grave yard to be "beautified" in the city in 1954.

8. St. John's Churchyard, Burslem, July, 1958. In an advanced state of dilapidation it is the playground for children who have desecrated some of the tombs and occasionally exposed their human remains.

Until the building of the Longton Cottage Hospital, treatment of the people of Longton depended upon making the journey to the Infirmary at Etruria or a visit to a dreaded " Institution." Their suffering was alleviated from about the year 1864-1868 by the good works of the Rector of Longton, the Rev. Adam Clarke, who instituted an " Invalids' Kitchen " with visits to the homes of the sick by a skilled nurse, Nurse Field. This nurse carried with her cooked foods, wine, spirits, linen, bedding and other articles for use in the sick-room. To such an extent did this good nurse work that she was herself taken severely ill. The Lichfield Diocesan Nursing Association granted her a long period of rest. (At first her wages had been paid by the Rector's wife, Mrs. Clarke, and later out of subscriptions.) The visits of the nurse was particularly appreciated in poor homes where mother and children were ill at the same time a feature by no means uncommon in those days of overcrowding and unhygienic conditions. This work was transferred to the new hospital.

The inauguration of the Cottage Hospital took place on Monday, July 30th, 1868. It was built on ground near to the Mission School at Mount Pleasant at a cost of between £600 and £700, about £130 of which was contributed by the " working classes." On the ground floor were sick wards, surgery, bathrooms, and ice-house. On the first floor were eleven bedrooms in addition to a number of rooms contained on a second floor beneath the main and smaller gables. The accommodation when opened was for four men, four women and a number of children all of whom were attended by " skilled " nurses, of which Nurse Short was the first under Dr. Arlidge the consultant physician " and a steady housekeeper with the wholehearted co-operation of all the medical gentlemen in the town." The land and building belonged to the Rector who, by a Deed of Settlement of November 15th, 1872, vested the property in the townspeople by way of a group of trustees composed mostly of prominent china and earthenware manufacturers. Weekly payments were made by patients, which, although small, prevented the feeling of charity. The inaugural proceedings consisted of a tea and public meeting in the mission school. Extolling the new hospital the Deputy Mayor said: " The North Staffordshire Infirmary was so far away . . . . persons might die before being treated."

Although at first Nurse Short carried most of the burden of nursing at the hospital other nurses were brought in as funds permitted. In addition patients recovering from illness in the hospital were later able to go to rooms fitted out at a farm house at Farley, near Alton, to recuperate under the care and charge of Miss Jackson of Farley who voluntarily made this provision for convalescents. Such were the beginnings of the Longton Cottage Hospital during the last six months of the year 1868.

The need for this hospital was considerable. Reports of some three years later, 1871, show that small-pox was on the increase in Longton, there being 120 cases under treatment by May 1st, 1871, with 14 deaths from this disease in the town during one month alone. People were suspicious of vaccination. Reports were prevalent in the town that arms had to be amputated as a result of vaccinations. Such was the fear of the disease and vaccination that it actually stated in a newspaper that the medical officer, Mr. Weaver, had declared in his report that such was the credulity of the people that they believed. " Nine o'clock at night is the bewitching hour when small-pox stalks our streets and seizes its victims, and that a piece of meat put on St.

John's Church at that hour was speedily seized upon by this terrible bugbear and in a short time covered over with small-pox." This same gentleman solemnly declared to the meeting of the Longton Town Council that there was not a shadow of truth in either report! But the medical officer said he had actually seen a child with small-pox eruptions playing about with a number of other children not so affected, the mother saying it was the measles.

In Longton during the month of April, 1871, eighty births and seventy-four deaths were registered. The death rate for the month averaged 44.4 in a thousand for the year—a remarkably high death-rate. Hansom cabs, used to convey small-pox patients to the isolation wards of the Infirmary, had to be disinfected. Penalties on the cab proprietors for failing to do this was £5—the extreme penalty permitted. Undoubtedly Longton was hard hit by the disease and in June the vaccination inspector reported at a meeting of the Stoke Board of Guardians that there were 200 cases in Longton in June, 1871, in addition to 22 cases in Fenton, 2 in Hanley, and 3 in Stoke.

For fifteen years the original hospital carried out its good work due to the untiring devotion of the Rev. Adam Clarke (who died January 16th, 1886) and to the generous donations of such men as Sir Smith Child. In 1885 seven new trustees were appointed to the hospital. By 1887 it was found that the hospital had gradually become almost obscured by factories and a pall of smoke and, as at Etruria, conditions made the removal of the hospital to a new site a matter of some urgency. As a result of this a two days' sale of work was held in the Market Hall resulting in a sum of £1,130 being raised towards the provision of a new building.

The site on which the new building was to be built was on rising ground land at Normacot and was given by the Duke of Sutherland. On June 27th, 1889, the corner stone was laid by Sir Smith Child. Messrs. Ford and Slater, of Burslem, were the architects for the building which was built by Messrs. H. and C. Inskip, of Longton, at an approximate cost of £3,360. It was appropriate that Mrs. Adam Clarke should open the Hospital on September 25th, 1890. The whole of the cost was raised by voluntary subscriptions, £900 of which was raised at the luncheon following the opening ceremony. It is interesting to note that during the early years the hospital at Longton had an annual income in the region of £1,200 with which some 360 patients were treated. When it ceased to be a private hospital, in common with the rest, the income was about £17,380 annually on which 1,130 patients were treated. The building was known for many years as the Longton Cottage Hospital.

Naturally the new hospital was received with acclamation by the people of Longton who possibly envisaged a Longton cured of all its ills. Dr. J. W. Davies, a member of the Honorary Medical Staff of the hospital for thirty-five years, and Medical Officer of Health for Longton, declared in 1897, that the health of the borough was much improved, but that the remedy for ill-health lay not so much with the hospital as with the people. His desire was to see a more rapid removal of cesspools, the producer of foul smells and the germinating beds of infection, and a better system of flushing the sewers of the borough, all of which had a deadly effect on children. During the year, of 819 deaths in Longton, 478 were of children under the age of five and of these 320 were under one year old.

Housing conditions were bad in the town. If we consider the vast demolition that

has taken place within the last few years and the rebuilding of houses, we may know that history has been repeated for in 1896 and 1897 the " work of condemning houses unfit for human habitation is going on steadily . . . . and the people cast out of their homes in large numbers . . . . have great difficulty in obtaining other habitation . . . . leading to overcrowding." Also, in the opinion of Dr. Dawes: " The rapid erection of rows of houses upon insanitary sites (with porous shraff foundations instead of concrete or clay) such as Anchor Road and the streets branching from it and Ashwood," where several outbreaks of diphtheria were taking place (1897) made the question of moving from condemned houses to the new a doubtful advantage. The soundness of this argument was borne out from time to time. In six months in 1902 there were 200 cases of diphtheria in Hanley, occurring in the newest streets as much as in the old. He emphasized the need for a hospital specially for infectious diseases. One Longton surgeon speaking in May, 1897, said: " The high death-rate of infants would continue so as long as 'mothers work on the pot-banks and put their babies out to nurse at such a small charge . . . and are fed almost entirely on boiled bread and water, sago and biscuits,' a poor substitute for milk and inadequate to sustain the lives of young babies."

In 1906 a new operating theatre was built at a cost of £1,220. It was lighted by electricity supplied by the Florence Coal and Iron Company, free of charge, and officially opened on September 4th, 1907. In 1914 new private wards were built and were particularly valuable during the war, after which, in 1921, a new Out-patients Department was erected on adjacent land given by the Duke of Sutherland's Trustees. This department, comprising a casualty dressing room, minor operation theatre, dental operating room, eye, ear and throat consulting room and a dispensary and sterilising room, was opened by Sir Francis Joseph on October 1st, 1923. In 1926 the Linen Guild was formed which provided funds for the needs of the hospital in the form of linen and surgical equipment. Today there are 55 nominal beds at the Longton Hospital.

Today, 1958, there are no cases of small-pox in the City of Stoke-on-Trent. Indeed great would be the dismay and the astonishment of the citizens were there but one case! Such was not the case in the latter quarter of the nineteenth century. In 1883 there was a severe outbreak of the disease in the district. Twenty-one cases were treated in Hanley, alone, by isolation in a dwelling house, there being no hospital for such cases.

Early in 1883, two cases of small-pox were treated by the Corporation in a house at Far Green. Later in 1883 a temporary hospital was erected by the Hanley, Stoke and Fenton Joint Hospital Board at Penkhull solely for small-pox cases. There was provision for 16 patients but such was the dread of the disease that the owners of the land refused to renew the tenancy after 1886 and the Board was forced to find permanent premises. Fortunately the Board had purchased, in 1884, over 6 acres of land at Bucknall for the sum of £750. The Local Government Board backed up the project by a loan of £7,525. The Bucknall Hospital was opened in 1886. It comprised the temporary hospital which had been removed from Penkhull and re-erected a central pavilion containing 12 beds and a convalescent pavilion containing 5 beds.

By 1887 sufferers (over the age of three years) from scarlet fever and typhus fever

were also admitted to the hospital and in 1890 diphtheria was also treated there. These were all in addition to the small-pox patients for which the hospital had originally been built. It speaks well for the hospital that during the years 1888, 1893, 1895 and 1896, no patient or nurse at the hospital contracted small-pox, neither was there any case of small-pox within a radius of a mile of the hospital. Although additions were made to the hospital such was the prevalence of the diseases quoted that overcrowding was inevitable. Such had always been the fear of small-pox that at one period (1885) the Hanley Cemetery Committee recommended that in cases of interment of persons who had died from small-pox or other infectious diseases, the chapel should not be used for a service, but the bodies should be conveyed direct to the graves and one bier only be kept for the purpose of conveying the coffin.

Vaccination was practised and assisted in checking the disease. On Thursday, December 22nd, 1898, two new pavilions were opened, each having accommodation for 12 beds and one isolation block for 4 beds. Concrete had been used for the foundations to ensure purity of atmosphere under the floors. The cost of the wards and other additions was £7,000.

On Thursday, February 6th, 1902, further additions were opened which included a new 18-bed pavilion, with separate wards and annexes as well as extensions to the administrative block, a disinfecting station and a new stabling and ambulance block. Most notable was the installation of a complete electric power plant with dynamo and accumulators to supply the hospital with light—all at a total cost of £10,500. On this occasion, as with the 1898 opening ceremony, no less than eight keys in " massive silver gilt " were used, a contrast with the paltry souvenirs of present day ceremonies.

Shortly after this opening ceremony the North Staffordshire Joint Small-pox Hospital Board was formed on May 13th, 1902, and its first meeting was held on January 23rd, 1903. It was formed for the purposes of the provision, maintenance and management for the use of the inhabitants of the Constituent Districts of a hospital or hospitals, for the reception of cases of small-pox. All the six towns and surrounding towns had an elected member on the Board. A temporary hospital in the form of wooden buildings was first in use at Bagnall followed by a brick building built in 1901-2. As the years passed this hospital was extended and dealt mostly with the small-pox cases. Vaccination was not too popular with the public and re-vaccination was often necessary. During 23 days in 1903, 21 patients suffering from small-pox were sent to Bagnall Isolation Hospital alone—of these, four died. These figures showed that the disease was again on the increase. The people of the Potteries were urged to " be patriotic " and to stamp out the disease by vaccination and re-vaccination. In October, 1903, five cases were discovered in one house at Bucknall.

What a contrast are these few records of the disease in the opening years of the twentieth century with the figures today. To such an extent have the killing diseases been defeated that the need for these hospitals has been greatly reduced and at the time of writing, 1958, Bucknall Hospital with its 202 beds is not over-crowded. Indeed a portion of it has been converted into a type of old people's home. The 56-bed hospital at Bagnall, used as a tuberculosis hospital for children, was closed in March, 1958. The Matron, Miss E. M. Burke, moved to Macclesfield to become matron of

a hospital there after 16 years at Bagnall. The T.B. patients, 40 in number, were transferred to Bucknall Hospital, there to be treated in a new department. Bucknall Hospital is now (Jan. 1960) the poliomyelitis centre for the area in addition to caring for the aged sick people and pneumoconiosis patients.

Vaccination and the advance of medical science, together with the devoted care given by the staffs of infectious hospitals, have reduced the cases of small-pox in the City of Stoke-on-Trent to nil. Dr. J. S. Hamilton, in his medical report for 1956, stated that for five successive years there have been no confirmed cases of diphtheria in the city. Also there have been no deaths in the 199 notified cases of scarlet fever for the year 1956.

The Richard Howard Haywood Charity Hospital came into being through a legacy of £30,00 left in the wills of two brothers, Howard and Richard Howard Haywood. Howard Haywood was a land owner in the parish of Norton where his name is perpetuated, carved on a granary, built in 1838, at Bank End Farm, Brown Edge. The two bachelor brothers in their later years lived at Brownhills. It was the wish of the brothers " to render aid to the poor and deserving sick persons of Burslem and the immediate neighbourhood." An indication of this, in the form of a building bearing a stone tablet inscribed " Ambulance House, erected by Howard Haywood, 1871," may be seen at the rear of the old Tunstall Police Station in Wesley Street. The last surviving donor died in 1874, but owing to litigation in the Court of Chancery, the legacy, much reduced, was not received until 1880. The terms of the legacy provided for the establishment of a cottage hospital and dispensary scheme with provisions for convalescent patients at the seaside. A group of governors was formed and the first meeting was held in the Town Hall, Burslem, on February 21st, 1881, with the Mayor of Burslem, Mr. John Maddock, in the chair. It was eventually decided to hire a house in order to get the project started and Fountain Place House and Bleak Hill House were offered for the purpose but found unsuitable. The doctors of Burslem recommended that two trained nurses be appointed to whom medical men and the public could apply for assistance and nursing. For this purpose a house in Waterloo Road was rented as a nurses' home. Meals were prepared at the " home " and taken to the patients. Arrangements were also made with milk dealers for the supply of milk to the home of those under-going treatment. Soon afterwards two beds were placed in the front room of the " home " and the first operation, an amputation, took place on May 8th, 1883. The cost of the first months work was £14. Another small scheme in connection with this " home " was the issue to patients by the two nurses of tickets enabling them to obtain meals from the Borough Coffee House in the Market Place, Burslem. The work of the nurses was carried on from this house until 1887.

In 1882 the Hospital Committee set out to obtain designs, by competition, for a cottage hospital and also to find suitable ground on which to erect the building. Land was forthcoming in Moorland Road at a cost of £425, and was sanctioned by the Charity Commissioners in February, 1886. A tender from Mr. William Cooke was accepted for a building at a total cost of £2,400, large enough to accommodate 14 beds. The foundation stone, beneath which were deposited copies of the *Sentinel* and other newspapers, was laid on July 27th, of that year by Mr. W. S. Shoolridge. Mr.

William Woodall later entertained members of the opening party to dinner at his residence, Bleak House, Cobridge.

On Monday, June 20th, 1887, in brilliant sunshine, the building was opened by the Mayor of Burslem. Miss Moore was the first matron. Over the front of the red-brick building were the " arms " of the Haywood family, executed in terra-cotta. The ground floor consisted of two wards of four beds each, a special ward with one bed, operating room, matron's day and bed rooms, a mortuary together with a bathroom and surgery and the usual domestic offices. Above these were five rooms to be used by the nurses and as occasional wards. In 1889 a gift of £1,000 by the Dobson family made it possible for the wards facing the Moorland Road to be raised one-storey in which twelve additional beds were housed. These new wards were opened on February 18th, 1891. Other wards were added and an extensive scheme of modernisation carried out. The hospital was used during the First World War for the relief of wounded soldiers. In October, 1915, sixteen beds were allocated for the use of the wounded. Such was the good work done by the hospital during the 1914-18 War that the people of Tunstall wished to commemorate those who had fallen by building a permanent memorial in the form of a new hospital. The committee formed hoped to raise £6,000 and to purchase Greengates House, then set in still pleasant gardens, near the top of Furlong Road, Tunstall and opposite to Christ Church, with the intention of converting it into a small hospital. The fine old three-storey house was built by William Adams (a member of the illustrious family of pottery manufacturers) and was in the latter half of the eighteenth century most elegant for its interior and exterior.

The house was bought and plans for the necessary alterations were drawn up when the committee learned that the Governors of the Haywood Hospital, in Moorland Road, Burslem, were considering extending their building and even rebuilding. As a result of friendly negotiations it was decided to amalgamate the two schemes, which resulted in bringing the people of the two towns together in a united effort for their own good. On Saturday, October 1st, 1927, Prince Henry laid the foundation stone of the new hospital on a site on the High Lane, which was to cost £43,000, of which £37,000 had been subscribed when it was opened in 1930 by the Earl of Harrowby. The hospital was named the Burslem, Tunstall and Haywood Memorial Hospital. The cost of running the new hospital in the first few years of its existence was between £800 and £900 a month. The endowment of the brothers, Haywood, naturally proved insufficient to meet the cost of maintenance. There were many schemes to increase the income of the hospital including workmen's contributions from nearby collieries, together with generous help from the colliery directors and the public. In 1939 a nurses' home was opened, free of debt, by Mrs. A. J. Tellwright, followed in 1940 by a private maternity block of eight beds, an extension to which was completed in 1944 providing a further 22 beds. The efforts of the Burslem Ladies' Linen Guild made it possible for the hospital to become a training school for nurses. The area in which the hospital was built, originally fairly open country, has been extensively built up. High Lane, Chell Heath and district are now mainly post-war housing estates. Since the war the hospital has been treating about 2,000 in-patients a year, and plans for extensive future development are in hand. There is land available on which buildings

could be erected resulting in a total of about 500 beds in the hospital. Since the opening of the hospital at High Lane, the number of beds has been doubled. The number in recent years has been about 96, of which 30 are for maternity cases. This land, secured by the foresight of the Governors', is a nine-acre site extending from the High Lane to the Stanfield housing estate and ensures a bright future for the hospital.

The Hartshill Orthopaedic Hospital, with its 77 nominal beds and which included 50 beds for children, has a long history of successful treatment of orthopaedic cases. Added to this work about 66 fracture beds are available at the N.S.R.I. The hospital had its beginnings in the ardent work of Millicent, Duchess of Sutherland of Trentham Hall who founded the Potteries Cripples' Guild and the Duchess of Sutherland's Home for crippled children where there were also workshops for their use. This home joined the Potteries Cripples' Guild in 1909 under the name of the North Staffordshire Cripples' Aid Society with the Duchess as president. This was followed in 1911 by the opening of a Cripples' Home at Hanchurch, but, owing to the distance from Hanchurch to Stoke-on-Trent the Home was re-housed in the Stoke Church Institute and later in larger premises in Woodhouse Street, Stoke.

Its final removal from Stoke to a large old house in Longfields, Hartshill, complete with its stables and coachhouse, took place in 1918, and a long hut was erected for patients. Much of the early treatment took place in what was formerly the stables. The nurses slept in a converted loft above them. Despite these inconveniences, 80 per cent. cures of in- and out-patients was claimed.

During the strike of 1926 the Cripples' Outing Committee was formed and for many years there was an annual outing for the small patients, by a large number of motor cars, to Alton Towers and other country places. In 1927, Viscountess Ednam, daughter of the Duchess was elected president of the Cripples' Aid Society. A £20,000 appeal was made for a large building extension scheme, £8,400 of which was raised by a " Persian Fair " held in the Town Hall, Stoke. By 1931 the extensions were completed and the money had been raised. Viscountess Ednam lost her life in an air crash on November 15th, 1930. On November 15th, 1931, H.R.H. the Prince of Wales opened the Rosemary Ednam Memorial extensions to the hospital. This was followed in 1932 by the opening of new open-air pavilions.

Adjacent to the Othopaedic Hospital is the (City) Limes Maternity Hospital, with accommodation for 44 beds.

" The Limes," formerly a private house and afterwards a residential hotel, was opened by Mrs. Stanley Baldwin, wife of the Prime Minister, on Friday, April 27th, 1928. This was an occasion when Mr. Baldwin also visited the city and was made an Honorary Freeman. The premises were originally purchased by the Corporation in 1919 for £2,400, and a scheme for converting the house into a small maternity hospital was submitted to the Ministry of Health in that year. It was decided that a larger scheme would be more beneficial and the matter was deferred. In view of this the house was let in March, 1922, for three years to be used as a private hotel. In March, 1926, a scheme was approved by the Ministry of Health, at an estimated cost of £14,000, to make the necessary alterations and to provide a thirty-bed pavilion block

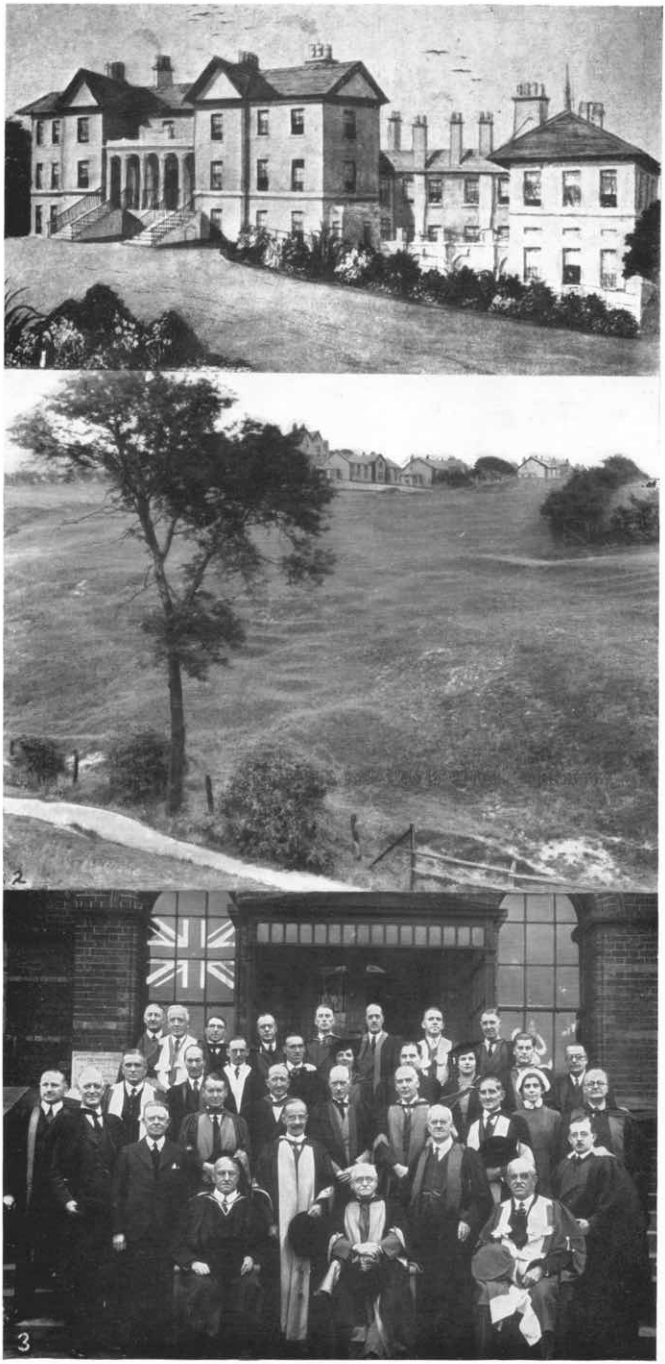
and a two-ward isolation block. £3,500 was also approved by the Ministry for equipment and furnishings. The original stable buildings were converted for use as a laundry. The estimated upkeep of the hospital at the time of opening was about £5,000 a year. The first baby, a girl, was born there on June 8th, 1928. She was Dorothy Jean Kent, and in honour of the event the nurses suggested the names to be given her and presented a silver christening mug. It seemed that such honours had a profound effect on Dorothy Jean, for at the age of 21, she decided to enter the nursing profession and trained at the N.S.R.I., where she became a Gold Medallist.

In November, 1947, a new block was opened. In May, 1956, a Premature Baby Unit was inaugurated containing 14 cots. Next to the Limes is "Ashlands," headquarters of the Mobile Radiography Unit, which arrived in Stoke-on-Trent in 1952 and has already done a vast X-Ray survey of the people of the city and district in its work of identifying cases of tuberculosis and chest complaints.

Tuberculosis, the germ of which is present in most humans, only developes in about 4 in every 1,000 people. Young children are extremely susceptible. Vaccination against the disease can be carried out at a chest clinic. Through the wonderful work of the hospitals and mass radiography this killing disease is being cured and prevented. The Stanfield Sanatorium, near to the Haywood Hospital had 91 nominal beds for use by patients. It was opened on Thursday, March 22nd, 1906 and was at that date set amidst open and pleasant fields with only the towns of Burslem and Tunstall to be seen at a distance. These were ideal surroundings which have altered vastly in recent years.

The total death rate from all forms of tuberculosis, as quoted from the Public Health Report of 1956, was 0.227 per 1,000 in Stoke-on-Trent compared with 0.121 in England and Wales. The Medical Officer (J. S. Hamilton, M.B., Ch.B., D.P.H.) said that he looks forward to the widespread adoption of dairy traders of waxed cartons instead of glass bottles. Despite the advance of the hygenic glass bottle and metal cap against the milk-can delivery, in use in the first half of the century, these "throw-away cartons" would make the incidence of tuberculosis and other diseases still less. As a great advance from the milk-man carrying a large can of milk the advent of the first sterilized milk for the Potteries took place in May, 1902. This was carried out by a local farmer, Mr. George Foster, of the Butterton Grange Farm near to Newcastle and the Potteries. The milk was heated twice in the bottles which were automatically filled and fitted with a metal cap. It was not until much later that this and other forms of hygienic milk dealing resulted in the passing of the old milkman—picturesque though this method was. In 1840 Tunstall gained most of its milk supply from Chatterley Farm, then a farm of importance. It was a popular venue for Sunday outings to collect milk, curds and whey.

In addition to the Stanfields Sanatorium, which ceased to be a tubercular hospital in August 1956, and is now a hospital for the care of the chronic sick, there is a Chest and Tuberculosis Clinic at Wellesley Street, Shelton. In one year alone (1956) 263 new cases of pulmonary tuberculosis were notified. In 1955 the figure was 336. In 1922 the figure was 452, at that time the smallest since the notification of the disease came into force. It is not unusual for the clinic to deal with about 17,000 people



For information see overleaf

1. The Infirmary situated on the "Wood Hills," Etruria Vale, opened in April, 1819, and transferred to Hartshill in 1869.

2. Stanfields Sanatorium photographed shortly after the opening, in 1906. Today this once sylvan setting is occupied by part of the large housing estate in the area of Metcalfe Road and Reynolds Road, Tunstall.

3. Distinguished surgeon, doctors and hospital officials at the North Staffordshire Royal Infirmary in a photograph by Mr. J. Templeman. Seated are Mr. Eric Young, Dr. S. King Alcock and Dr. W. C. Allardice.

during a year with about 270 beds available in the city and neighbouring sanatoria for the treatment of tuberculosis.

In Stoke-on-Trent and district there are approximately 650 blind persons. A fine building set back from the main road at High Town, Fenton, provides employment for 90 blind workers. The home-teaching staff makes about 10,000 visits a year. There is a wirework section in full production and some 470 handicapped persons—other than the blind, deaf and dumb, have so far (1956) applied for assistance in Stoke-on-Trent under the new Handicapped Persons Welfare Scheme. Workshops for the blind were originally housed in a building at Shelton and their Hanley sales centre is to be found in a building at the top of Broad Street which was built originally as the offices for the British Gas Light Company. The total sales for the year 1955-6 were well over £55,000. Early in 1959 the Lord Mayor, Alderman S. Capewell, who continues to work so indefatigably on behalf of the blind people of the city, laid the foundation stone of the social centre at Elsing Street, Fenton, the building which is now (June 1959) nearing completion.

The care of blind children is in the hands of an efficient teaching staff at the original Blind and Deaf School. The school, at The Mount, Penkhull, has interesting associations with the Wedgwood family. Mr. Godfrey Wedgwood presided at the first meeting called to consider means to carry out in North Staffordshire, the Elementary Education (Blind and Deaf) Children Act of 1893. At this period there were about 70 blind and deaf children of school age in the district. The Mount which was bought for a little over £3,000 had formerly been the private residence of the Spode family. It was extended and equipped with accommodation for 100 children. The North Staffordshire Joint School Authority, the governing body, came into being in 1895, and the Blind and Deaf School was opened by Godfrey Wedgwood on May 3rd, 1897. Three acres of land were given by Mr. Herbert Minton Robinson to the school in memory of Major Cecil Wedgwood (elected Chairman in 1911) who was killed on the Somme in July, 1916, during World War I. Children between the ages of 5 and 16 years were given practical instruction. Mr. A. J. Story was the first headmaster who after his retirement in 1925 took up a position as Secretary of the National Institute for the Deaf. He was followed by Mr. N. S. Follwell who in turn was followed by his son Mr. S. N. Follwell, M.A. in 1944. The Mount is a handsome house situated in about 11 acres of land. The semi-circular entrance on the west front is topped by a gracefully curved dome. As the number of blind children has fallen considerably within the last twenty years the blind department was closed in March, 1949 and today about 130 deaf pupils are taught by a staff of 15 teachers.

The Stoke-on-Trent Children's Homes, at Penkhull, have the care of orphaned children. At one time the homes were governed by the Stoke and Wolstanton Board of Guardians and had 300 children crowded in it. Today (1958) there are approximately 150 children under the gentle care of the Superintendent and the Matron, Mr. and Mrs. E. T. Owen in conjunction with a committee. Eight children are housed in each of the 23 houses and looked after by a foster mother or father. The children are encouraged to live normal lives. The old workhouse conditions, if ever they existed in these homes, have long since passed. The children dress quite normally and

attend school in all parts of the district.

In addition to all the hospital services there is a Midwifery Service. Staffed by midwives, 17 Ante-natal Clinics look after the expectant mother. There are approximately 93 midwives in the city (1956) and only one woman died in, or in consequence of, childbirth during the year. It is not unusual for these midwives to attend over 2,000 confinements. In 1956, 4,259 births were notified in the city of which 2,321 occurred in hospitals. Of the 1,938 home confinements, 80 were attended by doctors and the remaining 1,858 by midwives.

Health visitors and day nurseries are all part of the service to citizens of Stoke-on-Trent. There are 5 day nurseries open from Monday to Friday, the maximum charge being 25s., the minimum 15s., according to the prosperity of the parent who may wish to leave their children during working hours or through illness.

Welfare foods are distributed at 23 points in the city. There are convalescent homes, old peoples homes and many other services for which members of the City Council (employed and voluntary workers) continue to devote untiring care and understanding.

In this closing section of this chapter it is fitting to mention such outstanding work done by voluntary organisations such as the Thomas W. Twyford Memorial Infants Welfare Centre, once to be found in Bath Street, Hanley. Today in Bath Street, set in the midst of slum houses its face begrimed and dilapidated, is a building now used for industrial purposes. Behind this frontage—for this is all that can be seen, was once a most successful Welfare Clinic. The model of a child's head set above the door is all that is left to remind the visitor of its original purpose. The Centre originated in an old factory building across the road from the new building which was sold in 1922 to wind up the estate of Mr. Twyford. Here the work of looking after soldiers and their families during the First World War (1914-18) had been carried out. On Wednesday, March 28th, 1923, new premises of the Hanley Infants Welfare were opened by Miss Harrison of Maer Hall. The premises were presented by Miss Twyford in memory of her father Mr. T. W. Twyford and the opening ceremony was commemorated by a brass plaque in the entrance hall. The building included a matron's room, drug room, nursery, kitchen, a large lecture hall and doctor's room. The distinguished gathering that attended the ceremony is in direct contrast with the state of the building today, but the good work done there will still be visible in the health of those who received treatment and advice there. At the time it was said that the infant mortality rate in the Potteries was as high " as in any other large town in the whole country." Although there were other centres in the Potteries the Twyford Infant Welfare Centre, under its matron (Mrs. Bell), did a vast amount of work over a period of many years in the days before the age of the Welfare State.

An even earlier clinic was that of the Infant Health Visitors Association which was brought into being on March 5th, 1911, by Mrs. Cecil Wedgwood. The splendid association comprised 31 wardens and 205 visitors in its first year, most of whom were engaged in the work of voluntary health visiting. In 1912, 4,600 babies were sent to the wardens by the Health Department, for at this time only six official health visitors were employed by the Public Health Department. Also in those days the number of births was as many as 7,500 a year and it was impossible to carry out

systematic health visiting without the help of the Association. In connection with this work the Association opened its first Welfare Centre in a house (now 312 Etruria Vale Road) opposite to Etruria Park. It was known as the Wedgwood Infant Welfare Centre. When the Local Government Act was passed in 1929 it was arranged with the Ministry of Health that a block grant of £425 per annum should be paid towards the centre and this continued until 1948. In addition to this sum the services of the Medical Officer and Clerk, as well as a supply of drugs, was provided for the centre by the Health Department. This close alliance between the Wedgwood Clinic and the Stoke-on-Trent Corporation resulted in the clinic being formally handed over to the City Corporation in September, 1946, when the Lord Mayor made presentations to the Superintendent (Mrs. M. Molloy) and to the nurse (Miss E. Brougham) who had given devoted service to the centre. The clinic had even cared for the teeth of children and Mr. Shields had acted as dental surgeon from its inception until his death. This remarkable clinic, the forerunner of similar ones in the city, paved the way to the work of maternity and child welfare carried out in the 19 City Infant Welfare Centres at the present time.

The most recent clinic to be opened and the first of its kind in the city since the war is the Eilzabeth Findlay Health Services Centre at Glebedale Road, Fenton, opened in July, 1957, at a cost of over £17,000. Built on rising ground with a frontage to the main road at Fenton and adjacent to the disused vicarage, the building which is entirely modern, provides accommodation for maternity and child welfare, ante-natal care, district midwifery and district nursing in the Fenton area. Dr. Findlay, who had been Senior Medical Officer for Maternity and Child Welfare for the city between 1940 and 1957, opened the building and unveiled a commemorative plaque.

Today, in 1959, the Stoke-on-Trent Hospital Management Committee under the chairmanship of Alderman Mrs. A. L. Barker, is responsible for the day to day administration of 21 hospitals and 7 clinics with a total of 3,000 beds in an area which covers Stoke-on-Trent, Newcastle, Loggerheads, Kidsgrove, Leek, Cheadle and Biddulph, with a total population of approximately 450,000.

In one year (1957) hospitals in the group with 2,914 beds available dealt with 33,246 in-patients and 28,908 out-patients whilst the number of operations was 27,915. Concerning maternity, about half of the confinements in the city are carried out by Municipal Midwives. Under the local authority 33 midwives are employed of whom 16 own cars. Nineteen Child Welfare Centres in the city attend to the welfare of the child up to the age of five after which they come under the care of the school health service. Five Corporation Day Nurseries each with a matron and sister in charge are able to care for 210 children under school age and are open on week days from 7 a.m. to 6 p.m. Charges are made for this service according to the income of the parent, the maximum charge being 25s. Thirty-eight District Nurses in the city make about 100,000 visits a year over half of which are to patients over 65 years of age.

Through a Family Doctor Service medical attention may be received by all the citizens of Stoke-on-Trent and vaccination against poliomyelitis was started in 1956. The city Ambulance Service, brought in with the National Health Service in 1946, is

equipped with 20 ambulances and 4 cars which can be directed by two-way radio systems. The 60 members of this staff are qualified to give first-aid.

In addition, domestic help by 160 women employed as part-time helps is available for aged and chronically sick people and in 1956, 1,306 households received this assistance, a small charge being made according to financial circumstances.

CHAPTER 11

Baths and Parks

The wellbeing of the people of Stoke-on-Trent is materially added to in the parks, recreation grounds and baths of the six towns, a need which became fully realised at the beginning of the twentieth century. Long before this however the need for public baths had been recognised. A bath, other than the then large zinc household type, was seldom to be found in working-class homes. Today, a bathroom in working-class homes is quite commonplace. So " Public Baths for the Working Classes " used to be found in various parts of the Pottery towns. One of the earliest records of these baths is mentioned in the Potteries Mercury, of July, 1824, in an advertisement in which " The inhabitants of Burslem .... are respectfully informed that the Public Bath, Burslem, at the Boycers, is open to the Public." Annual subscription for families was £1 1s. od., for individuals 10s. 6d. Non subscribers paid 6d. for each visit. The bath, which was new, could be supplied with either warm or cold water by giving half an hour's notice and the key could be had on application to James Garner, bath-keeper, Boycers, Burslem. Apart from this it was possible, towards 1850, to obtain occasional baths at local mills. One of these is recalled by a one time Mayor of Hanley, Councillor Michael Huntbach, who came to Hanley as " a raw country boy " about the year 1851 and who went every morning to the mill of Mr. Charles Adams to get a bath. The first time he jumped in " it was very cold indeed."

Three years later on Thursday, June 1st, 1854, the Etruria Public Swimming Bath was opened, having been built in the autumn of 1853. It was announced as a Swimming and Bathing Mere and a beautiful place of resort to swimmers and bathers. This fine bath, of which no trace remains, was situated on the canal side near to Macaroni Bridge, in the valley between Etruria and Burslem, and about a quarter of a mile from the former place. The site was very picturesque. The bath had a feeder—the then clear Foulhay, or Fowlea Brook, besides which the willow trees grew in profusion. The open-air bath was 150 feet long by 60 feet broad with an area of 9,750 square feet. It was surrounded by a gravel walk and had, on the side next to the canal, a high brick wall which branched into an " undressing shed on one side and a well rolled lawn on the other." It varied in depth from 2 to 7 feet with the bottom of the bath composed of layers of fine sand and gravel on a clay base. A row of posts and ropes running longitudinally partitioned off a portion of the bath for the safety of those who could not swim. Life buoys, belts and bladders were provided for learners and to prevent accidents. A lodge was built at the entrance for the bath-keeper and construction of the baths was supervised by Mr. J. S. Forbes, architect, of Etruria. The baths, which must have been extraordinary to the district, were open throughout the week from 6 a.m. to 8 p.m. at a fee of 1d. plus ½d., extra for a towel! For men annual tickets cost 5s. each. During the year of the opening, hot, cold and private shower baths were added for men and women. The walk to the baths was a noted one in those days. The baths were regarded as " one of the luxuries of life." In

addition swimming sports were held from time to time and in August, 1858, Samuel Potts, a working man of Hanley, swam " fully two miles in less than three-quarters of an hour and challenged all comers to a still greater length! " Truly " Mr. Myatts' swimming pond " at Etruria must have been a luxury for swimmers in the Potteries. How and why the swimming bath fell into disuse and disappeared is not known, but one suspects that subsidence may have played an important part.

Eastwood Baths, Hanley, were opened in 1850. These were public baths opened by the proprietors of the Eastwood Mills. Hot and cold water was available in individual baths and there was in addition a large swimming bath.

About the year 1860 the idea of indoor baths for the Potteries was considered, and at Stoke bazaars and other functions were being held in aid of funds for their construction. These baths were opened on Tuesday, May 8th, 1860, and up to the Thursday night of that week 211 persons had used the swimming baths—which had a temperature of 54°. The private baths, first and second class, had been used by 70 men and one woman! The water for these baths was at first from a spring nearby, but as this was insufficient, additional water was obtained from the Staffordshire Potteries Water Works Company.

In 1871, the General Purposes Committee of the Hanley Town Council reported on " the proposed public baths." Sites were available in Tontine Street, at 35s. per yard, and in High Street, at 20s. Both sites were owned by Mr. F. Bishop, who was willing to return one-tenth of the purchase money as a donation. Land was also offered near Mayer and Gladstone Street at 9s. per yard; in Church Street (" where the circus stands ") (now Roxy cinema) at 10s., and a house and land in Lichfield Street, by the executors of the late Timothy Dimmock. Mr. Meigh's field in Old Hall Street and land in Trinity Street was also offered. It was proposed to sink a well to obtain the water as it was estimated that a quantity of 25,000 gallons of water would need to be renewed twice weekly. The Waterworks Company were at that time required by law to supply water for public baths at a rate not exceeding 6d. per 1,000 gallons. The Lichfield site was eventually chosen and the baths opened in 1873.

Not to be outdone Longton soon followed suit and erected baths for the town. The baths were built on ground by the railway station and their erection made such rapid progress that they were opened nine months after the foundation stone was laid. The opening ceremony took place on Wednesday, July 13th, 1881. The building, which cost £8,000, was erected in the style known as Ornamental Gothic in red brick with stone facings, surmounted by a clock turret at the east end. The large bath, 70 feet long by 30 feet wide, with depths ranging from 3 feet 3 inches to 6 feet 3 inches, held 60,000 gallons of water. There was a second-class bath 55 feet by 30 feet. Private baths were also available. There was a laundry with washing machines driven by a 5 h.p. engine christened " Ethel," after the Mayoress of Longton, Ethel Holdcroft.

To mark the occasion of the opening a swimming display was given and an extraordinary incident took place near to the end of the programme. The appearance of a " nondescript," who notwithstanding the efforts of the police stationed at the

entrance of the baths succeeded in jumping, fully clothed, into the middle of the bath. " His efforts at swimming or sinking being frantic in the extreme caused considerable horror and consternation." In her anxiety an old lady, seated near the side of the bath, endeavoured to save the unfortunate man by reaching out with her umbrella, but after a short struggle to effect a rescue, she, herself, fell into the bath " umbrella and all " with a loud splash. A policeman stationed in one of the ladies' galleries, seeing what was going on, called: " Stand clear!" and suddenly took a terrific dive from his elevated position into the water and a struggle ensued in the effort to save the old lady who was drowning. It was not until the " nondescript " in the water had stripped himself of his outer garments to join effectively in the now grave situation that it was realised that his initial appearance and display of drowning had been a hoax!

Today (1958) the public baths at Longton are in an advanced stage of decay. Because of damage caused by mining subsidence both swimming baths have been closed for many years. Cracks may be seen across the begrimed bottoms and side of the baths, the whole presenting a dirty and depressing picture. On one occasion the water in the smaller of the two baths disappeared overnight after the bath had been completely emptied for cleaning during the day and refilled. In addition the larger bath in which the galas were held leaked so badly that it also had to be closed. Thus the baths have remained empty and useless for many years and only the private baths are now in use, the staff having been reduced to a very small number.

Public baths were opened in Moorland Road, Burslem, almost opposite to the station, in January, 1896. Similar in construction to Longton, the building was of red brick with terra-cotta facings and cost £10,680. It contained two large baths, one 25 yards long and the other 20 yards, in addition to 16 private baths and Turkish baths. During the first year, over 25,500 men and 1,360 women, exclusive of children, went to the baths. The receipts for the year 1897-98 amounted to £403. The baths were lighted by electricity, the dynamos for which were coupled to the machinery already at the baths. Today these baths are well used.

Tunstall Jubilee baths were opened, partly completed, in July, 1890. The swimming bath was 72 feet long by 28 feet wide and held 61,000 gallons of water. The Markets Estates and Baths Committee of the City Council have been for some time considering the question of new swimming baths in the city and, in conjunction with the City Reconstruction Officer, have been seeking a suitable site. Owing to subsidence, so prevalent in the six towns, this is no easy matter—quite apart from the fact that the amount of land available does not, in the main, increase. A site with a frontage to Duke Street, Fenton, has been considered and at the time of writing (1958) the compulsory purchase of a site in Fenpark Road, Fenton, has been recommended. This site is still occupied (May 1959) by the derelict Rubian Art Pottery. In view of this and the state of the Longton bath it now seems certain that new baths will eventually be built in this southern area of the city.

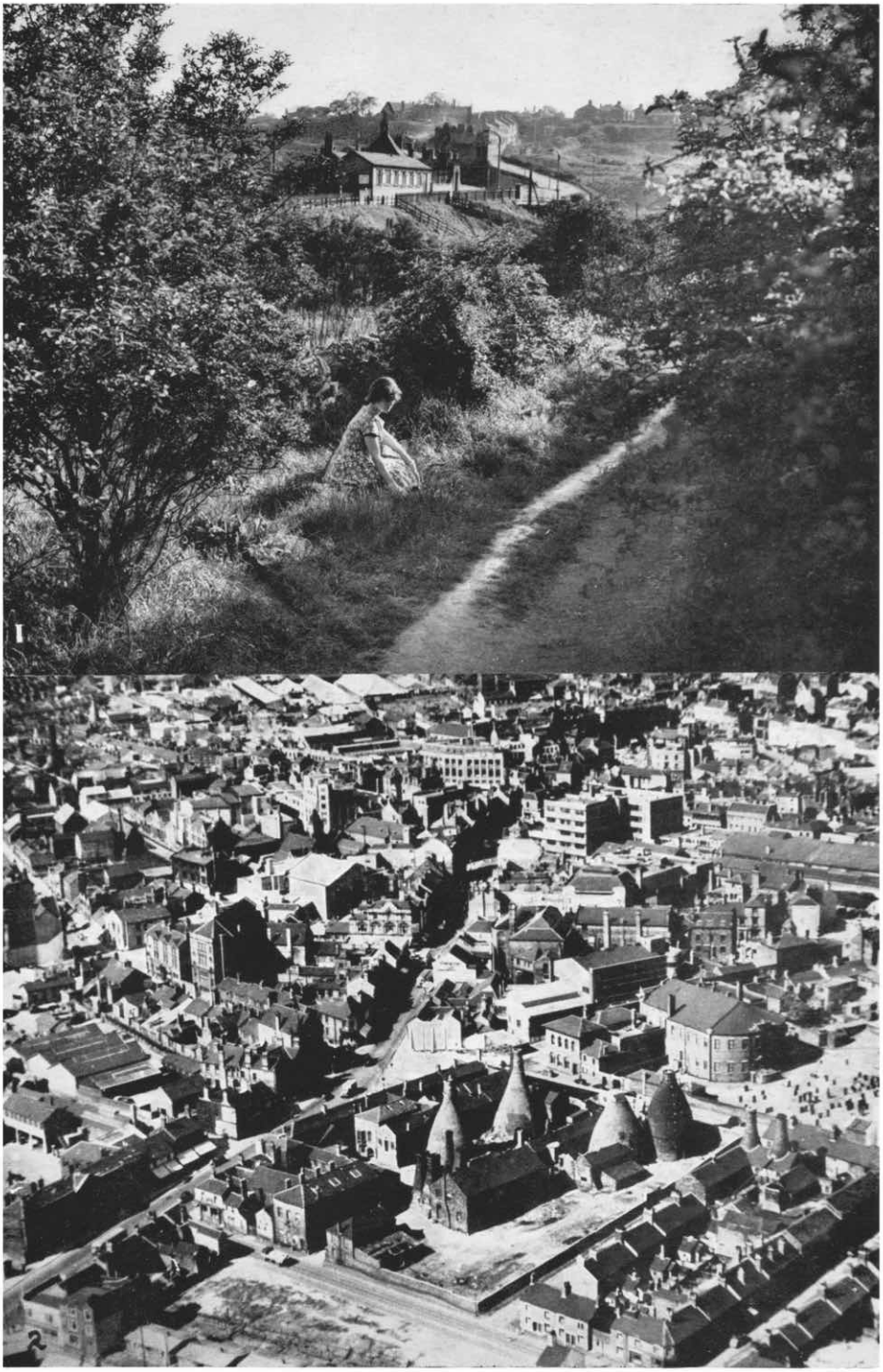
Meanwhile, Hanley baths have been completely reconditioned and partly reconstructed at a cost of £10,000. This has included a new, wider balcony, widened by 18 inches. The walls have been tiled to the roof and also the old concrete sidewalks.

The tiles of the baths have been treated with a special white facing to prevent leakage of water. Turkish baths, sun-ray treatment rooms, modern showers, baths and new toilet accommodation are all part of the reconstruction which is to include the second bath. Particularly worthy of mention was the magnificent, tiled open-air swimming bath built by Burslem Recreations Ltd., a private company formed by the directors of Sneyd Colliery Ltd., at the top of Moorland Road, Burslem and opened to the public on Whit Monday, June 6th, 1938. The bath, a combined reservoir for the colliery was the largest in the Midlands measuring 220 feet long by 92 feet wide. The depth at each end was 3′ 6″ and at the centre 9′ 6″. It was capable of holding 640,000 gallons of water which was heated to not less than 76 degrees. There were two diving stages and two water chutes in addition to two childrens' paddling pools. The whole was lighted at dusk by overhead and under-water floodlighting, whilst a 12 feet glass screen protected the bathers and up to 5,000 spectators, accomodated on terraced or tiered seating. The baths cost £25,000. Adults were admitted for 6d and children for 4d. It was so popular that Mr. Birchall, the secretary, recorded 3,000 bathers through the baths in one day.

On the outbreak of World War II, in September 1939, the bath was closed. Later it was used by the A.F.S. and baulks of timber were floated on the water to avoid reflection of light from the moon by the water and white tiles which could have guided enemy aircraft. During the war years mining subsidence, from the High Lane Fault, caused extensive cracks to appear in the bath and the water drained away. Today, blackened and derelict, the bath is empty but for the flotsam and dirt and grime of the Potteries.

Parks

Of the many parks to be found within the city, Queen's Park, Longton, laid out to commemorate Queen Victoria's jubilee, is the oldest. The first turf was turned on a brilliantly sunny day in March, 1887, by the Mayor of Longton, Alderman John Aynsley, when he inaugurated the scheme on 45 acres of land given by the Duke of Sutherland. The park occupies, as then, an ideal setting although ironworks, collieries and potteries were within close proximity. The ground at that time was bounded on one side by the Florence Mineral Railway and on the other by the newly constructed road called Park Avenue. Entrance to the new park was by three ornamental gates bearing the armorial bearings of the Duke of Sutherland, the borough of Longton and of the Mayor, on each. The residence of the park keeper was built in half-timbered style. The lakes of the park cover 5 acres and the 300 tons of stone used for lining the banks of the upper lake were given by the North Staffordshire Railway Company. The lower lake of 3 acres was 4 feet deep when cut and was stocked for the opening with roach, perch and carp, whilst 1,000 trout were put into the upper lake. Four swans were taken from Trentham Park Lake by the invitation of the Duke of Sutherland. Although well fed on Indian corn one of the swans decided to return to Trentham and set off along the road only to be met by workmen at the Blurton Toll House and to be brought back to Longton. Curiously enough the swan was apparently never forgiven by the three remaining swans which eventually killed it! At the point where the first sod of earth was cut



For information see overleaf

1. City beautiful? This photograph, taken in May, 1957, shows the daughter of an "Etruscan" gathering wild flowers on the borders of what was once gardens to the houses in "Lord Street," Etruria. Beyond is Etruria Station and Basford Bank.

2. This view of Hanley, by courtesy of Aero Pictorial Ltd., Redhill, Surrey, shows the Bell Pottery (site of the new museum), Bethesda Chapel and many other points of interest.

a Norway maple tree was planted and a Norwegian pine by the Mayoress. The park was formally opened on Wednesday, July 25th, 1888 by the third Duke of Sutherland, George Granville William Sutherland Leveson-Gower, K.G., who handed over the Deed of Conveyance by which the Queen's Park became the perpetual property of the people of Longton. As hitherto mentioned in this book the costly golden key was a work of art. Made by Messrs. Elkington's of Birmingham, it bore on its massive sides the arms of Sutherland and Longton Borough, together with the words: "Queen's Park, Longton, opened July 25th, 1888." With this key the Duke opened the main gates in a ceremony which was marred only by the rain.

In 1898 the maintenance of this park occasioned only slightly more than a 2d. rate annually! In June, 1906, the Bowling Green and Pavilion was opened. If Longton Park is the oldest, Hanley may be said to be the oldest in origin for at least as early as May 22nd, 1857, a meeting was held at which Messrs. Pidduck, Boxley, Allbutt, Peake (Secretary), Bishop and Forbes were present and 16 acres of the Shelton Hall (or Chatterley) estate were offered at £200 per acre by Mr. F. Bishop and also a field of three acres adjoining the estate owned by the Rev. J. Armitstead. Several further meetings were held in June and Sir Thomas Boughey was approached as to whether he would sell a portion of the Shelton Farm estate which enclosed the remains of the beautiful Elizabethan mansion used as a farm-house, but once the home of Elijah Fenton the poet, and almost completely destroyed by fire in May, 1853. However despite the efforts of these public men of Hanley the project was abandoned for Hanley, at that time, was incorporated, had no cemetery and possessed poor sewerage arrangements and it was thought that these should come first. Actually a subscription was started for the purpose of the park but this was given to the Shelton Church Schools. However one finds that the project was being earnestly considered. Again in September, 1864, it was given consideration and a committee was formed for the purpose of looking for suitable land on which to lay out a park. Mr. Paddock offered 13 acres of land at Far Green at a cost of £4,000. In addition to this was 9 acres of land adjoining this ground offered by Mr. J. S. Walker on behalf of the executors of Mr. Warrillow at a cost of £1,745. The committee approved these sites as suitable and recommended the purchase be proposed at a public meeting of burgesses to be called for that purpose. There was of course opposition, but it was pointed out that the wealth of the town was increasing! The new valuation of the parish had increased the rates to the amount of £4,000, and a great portion of the increase had arisen in Hanley. The rate for the purchase of the park, it was said, would be spread over 30 years and would not amount to more than 1d. in the pound!

The public meeting was held in the National Schoolroom, Etruria, in October, 1864. The general opinion was against the expense of a park. Councillor C. Jones said that unless a site were secured before long the chances of ever obtaining a public park would be very slight indeed. He was in support of the project, but was alone in this respect and his words were to prove prophetic for it was to be exactly thirty years before Hanley was to have its park!

The opening ceremony of this park eventually took place on Thursday, July 26th,

1894, when the Mayor of Hanley, Alderman Hammersley opened the first section of the park. The first turf had been cut on Monday, May 16th, 1892, at the upper end of the proposed park, near Hawkesmore Street (Regent Road) by the Mayor of Hanley, Councillor M. Huntbach (who donated £1,000) who, with great difficulty, cut the extremely hard earth. The park had been the outcome of much thought and labour. Three thousand people attended the public meeting in the Victoria Hall, Hanley, on November 5th, 1890, at which the resolution in favour of the park was carried by a large majority. It was the largest meeting ever held in Hanley in connection with municipal business. The meeting also approved the Shelton Hall Estate site and as there was some dissension from residents in the outlying portions of the borough the Corporation subsequently purchased ten acres of land at Hallfields (Northwood) and eleven acres at Etruria for the purpose of making gardens and recreation grounds. The total amount of land purchased at Shelton was over 100 acres at a total cost of £41,877. It comprised over 50 acres from Sir T. Boughey (£15,317); 42 acres from the Reverend J. Armitstead (£14,610); 12 acres at the Cauldon grounds, fronting the main Stoke Road from T. C. Brown, Westhead, Moore and Co., the Cauldon Pottery (£11,000) and from Mr. Jones's trustees, 1 acre at £950. Some 25 acres was set aside for sale as building sites on the fringe of the park. The lake, covering approximately 5 acres, was excavated, puddled and filled with water from the canal at a cost of £2,500. It was said that the transformation of the part of the Shelton Estate, known as Cauldon Place grounds, was " prettiness itself."

The opening ceremony of the first section took place near the junction of what is now Avenue Road and Stoke Road. Work was rapidly progressing on the second portion of the park. Also arrangements were almost completed at this time (1894) by which Victoria Road, now College Road, would be opened into Station Road. The first section of the park had cost, in all, about £18,000 of which the ground had cost £11,000 and towards which the late Mr. George Meakin had contributed £5,000. Again a silver-gilt key, the workmanship of Messrs. Henry Pidduck and Sons, was used. It bore the arms of the borough in coloured enamels on one side and on the reverse side the monogram of the Mayor, Alderman E. J. Hammersley, together with the date and an inscription marking the occasion. The key was presented to the Mayor by Mr. H. B. Shirley, on behalf of the Town Council, after which the Mayor opened the ornamental gates and declared the park open in the name of Queen Victoria and the Corporation of Hanley.

By September, 1895, much progress had been made on the newly opened park. A new bridge was in the course of construction to replace the old arch over the canal in the then new Victoria Road and foundations were laid for three other girder bridges to span the canal where it ran through the park. The terrace was almost complete and the band stand had been begun. The site for the main pavilion was being prepared and towards the end of September the foundations were laid.

In April, 1896, plots of building land adjoining the park were offered for sale by auction at the Town Hall by Mr. Louis Taylor on behalf of the Corporation of Stoke-upon-Trent, namely the corner site in Stoke Road and Park Avenue. The highest

bid for this lot and some other lots was eight shillings per yard but the lots were withdrawn. At this auction only a few sites were sold. Many were later sold by private treaty. During the same month the fountain in the original smaller park was completed and the water turned on by Miss Edith Hammersley, niece of the donor of the fountain, Alderman Hammersley. Made of terra-cotta, it is interesting to note that the fountain was made in the Potteries. This ceremony was followed in June, 1896, by the removal of the two Russian cannons from Etruria Hall to a site near the partly completed pavilion. In July the Howson Bandstand was opened in memory of Mr. George Howson, a man " whose soul was full of music."

The second part of the park was opened on Jubilee Day, in June, 1897, with a total cost to the ratepayers of over £70,000!

Hanley Park today, 1958, is the largest of the city's parks, covering an area of over 62 acres of land. Longton Park is now 41 acres, Tunstall Park, 30 acres, Burslem Park, 21 and Fenton Park, 17 acres. Other parks in the city are smaller, and recreation grounds vary in area between one to five acres.

One of the most delightful events to be held in the park was the Hanley Park Fête. This event continued well on into the first half of the twentieth century, but persistent financial loss, largely caused by habitually bad weather on the fête day, resulted in the event becoming just a memory. The first fête took place on Wednesday and Thursday, July 7th and 8th, 1897. It was modelled on the Shrewsbury Flower Show and presented this in miniature. From the point of view of the weather it was doomed from the onset. " The air was cold and a stiff breeze was blowing, threatening to bring rain at any moment." Although the weather later improved somewhat. Pat Collins' fair, once so popular in the Market Square, Hanley, during Wakes Week, was always a prominent feature of the fête. The principal event of the evening was a balloon ascent by Miss Maud Brooks who leapt from a great height trusting her life " to an umbrella-like apparatus " and landed at Berryhill. Electric light was used at night from the beginning and a firework display always completed the event which throughout the years was often marred by violent thunderstorms and torrential rain. At the first fête the money taken at the gate exceeded £940 and on the second day 18,000 people passed through the gates. The last Park Fête was held on Thursday, July 21st, and the following Friday and Saturday, 1939.

Another important event to be held in the park was Hanley Horse Parade which also has now passed into history. The first parade was held in May, 1896, in Trentham Park and was organised by the society known as the North Staffordshire Scheme for the Encouragement of the Kindly Treatment of Animals, with the Duchess of Sutherland as president, and it was later held for the first time in Hanley Park on May 13th, 1897. The parade in later years assembled in the Market Square, Hanley, and the procession provided a fine sight on its way to the park.

The Potteries Central Horse Parade, as it became known, was originally managed by a committee consisting of the Mayors of Burslem, Hanley, Stoke, Longton and Newcastle, and the Chairman of the Urban District Councils of Tunstall and Fenton. The work of the society went on all the year round, a system of registration and inspection being carried out to ensure that kindly treatment of horses was encouraged

at all times. The competition was open to any person residing within a ten-miles radius of the Hanley Town Hall and there were about 90 entries for each of the first two shows. The judges were the Duchess of Sutherland, assisted by Mr. R. C. Trigger of Newcastle a President of the Royal College of Veterinary Surgeons, and others. Competitors ranged from ponies to heavy draught horses attached to drays and floats. Harness and brasses were brightly polished. The prize money totalled about £60 at the first two parades held. The Duchess, as always, was outspoken and declared. " A man's horse ought to be as dear to him as his life . . . . A hard-working horse had twice as many brains as an average man . . . . The Mayors of the district," she added, " with the exception of the Mayor of Newcastle and the Chief Bailiff of Tunstall, who had done nothing to help them, had done their very utmost, and the Mayor of Hanley had worked like a slave."

A record of 123 entries marked the parade in 1938 which had been revived after a lapse of about twelve years.

The last horse parade, with 109 entries, was held on Whit Monday, 1939. This show of fine horses which had been under the auspices of the R.S.P.C.A., had been brought to a closure by the growth of motor transport, the gradual disappearance of the dray-horse and the World War that followed in September, 1939. The many silver cups were handed over to the City Education Department for re-use as school trophies. Curiously—twenty years later—in April, 1959, the delivery was made to the City Parks of a new and beautiful cart. It was completed by Mr. Thomas Hand, of Regent Road, Hanley, after six months' work. Capable of carrying two tons this rarity now costs in the region of £150.

One month after the opening of the first section of Hanley Park the town of Burslem threw open to the public a 22-acre park on August 30th, 1894. The site of the park, off Moorland Road, consisted partly of farm land which had been worked by Mr. John Dean, and an area of rough land, open pit shafts and cinder heaps. The dreary waste was a difficult problem for the landscape gardener, Mr. T. H. Mawson, of Windermere, who had laid out the Hanley Park. The Burslem Park lake with its wooded island covers about ¾ of an acre, the puddling of which proved an expensive matter at the time and, indeed, 27 years later when in June, 1921, the water of the lake completely disappeared down an old colliery air shaft located in the middle of the lake bed. The top filling of clay and earth of the brick-lined shaft had caved in and the hole was several yards in diameter and well over 20 feet deep. The main entrance to the new park was by way of the wrought-iron gates in Moorland Road which were given by the Mayor and Mayoress of Burslem, Alderman and Mrs. Spencer Lawton. The brick and terra-cotta lodge is in the Elizabethan style. Much of the terra-cotta was made at the Rowley Regis Works of Messrs. Doulton Co.

Today one may see a delightful rockery with ferns and flowers surmounted by a shelter. This was laid out on an old pit-mound. The opening ceremony was memorable and contrasts with the comparatively " poverty-stricken ceremonies " of the present day, occasioned by changing conditions. All the principal streets of Burslem were decorated for the occasion and most places of business closed. Great crowds of Burslem folk lined the route from the Town Hall to the park and the " gigantic

procession" moved off at 4.10 p.m., via St. John's Square, Queen Street and Moorland Road. One section alone comprised over 7,000 children. It was a common occurrence for at least 15,000 people to visit the park on a Sunday.

The cost of the park and site was about £17,000. Many improvements have been made to the park since those early years. On the Victory Day Celebration on Saturday, June 8th, 1946, the Lord Mayor of Stoke-on-Trent, Mr. Percy Williams, opened the Garden of Remembrance in the park, unveiled a memorial tablet and bowled the first wood on the new Victory Bowling Green near to the garden.

The next park to open was Etruria Park on Thursday, September 29th, 1904, by the Mayor of Hanley, Mr. H. B. Shirley, using the silver-gilt key handed to him by his brother, Alderman Jesse Shirley, an Etruscan, whose love for the village of Etruria is lengendary. The park was laid out on 11 acres of ground. The main architectural feature of the park is the fountain presented by the Shirley family. It is specially noted for its Wedgwood plaques (see History of Etruria).

The opening of Northwood Park by the Mayor of Hanley, Alderman T. Hampton, took place on May 23rd, 1907, after a procession from Hanley Town Hall. Although the park was then incomplete the opening was put forward to take place on the day celebrating the jubilee of the Incorporation of the Borough of Hanley. This park, which cost £9,500, is a delightfully "natural" park and contains a small lake—originally an ancient fish pool—after which Fishpool Walk was named (now Eastwood Road).

Tunstall Park may be said to have its origin in a recreation ground which was laid out in Station Road, Tunstall, in the year 1890, at a total cost of £3,500. On September 22nd, 1899, it was announced at a meeting held at the Town Hall, Tunstall, that the Urban Council had purchased 34 acres of land, mostly from the Chatterley Whitfield Colliery, at a cost of £5,000, on the east side of the town extending into the then newly acquired district of Chell. A portion of the land was to be sold for building purposes, the money from which was to be spent on a new road from the station to Pitts Hill. This is now Victoria Park Road, but the estimate of £2,000 was much exceeded. The land was chiefly made up of coarse grass, honey-combed with old pit shafts. The making of the new road caused much controversy and for a considerable time the land on which the park was to be laid out was neglected as it was said that the cost of making the park at that time was too high.

In 1898 the park land was still in the tenancy of Mr. J. Beresford, who complained that he had received no rent for it since November, 1897. He alleged that the persons to whom he had let the land had told him that they had been informed by a council official that the land belonged to the council and that they as tentants must not pay any rent.

The laying out of the park was spread over a number of years and it was not until the opening of the ornamental park gate on June 18th, 1908, by Mrs. J. Nash Peake, that it was felt that the park had been "well and truly opened." It was the culmination of years of work and included a fine pavilion, overlooking two bowling greens and the Cumberlidge Fountain, and a clock tower given by the Adams family, built on an old pit mound.

The terrace, one of the highest points in the park, was also set on an old pit mound without the need of disturbing the waste material to any extent. Much of the labouring was done by unemployed men of the town and whilst the men were getting gravel and sand from a piece of land near the Chatterley Whitfield railway, a huge granite boulder, weighing about 6½ tons, was unearthed. It was removed to a point by the present clock tower. The boulder was deposited in the area during the Ice Age, and had been carried by ice from " Southern Scotland." On the side of the stone which was nearest the surface when it was unearthed was also discovered marks believed to have been caused by the stone being struck and seamed with plough-shares when the ground was under arable cultivation, for the stone was under only nine inches of soil.

Two lakes were made which were supplied with water from the Chatterley Whitfield tunnel, but owing to the many pit workings great difficulty was encountered in making the lake watertight. When nearing completion the lakes suddenly emptied overnight! On the south side of the clock tower terrace a lower terrace was laid out. At one time coal pits were being worked at this point—complete with engine pool. The bottom of this old pool was levelled and concreted and made into an ornamental pond.

Middleport Pleasure Grounds were laid out in 1908. Here again much of the labour was completed by the unemployed men of Burslem.

Fenton Park, which cost just under £10,000, was opened by the Mayor of Stoke-on-Trent, Alderman F. Collis, on Monday, April 14th, 1924. Here again the site had been rough ground with pit tips and old shafts. The original park in Cemetery Road, Fenton covered 17 acres.

On Monday, October 5th, 1959, extensions to Fenton Park costing £40,000, were opened by the Lord Mayor (Alderman Harold Clowes) in the company of the chairman of the Parks and Cemeteries Committee (Alderman G. L. Barber. Again the land had once been pit mounds and waste marshy ground. With the new entrance in Victoria Road, Fenton, the park now covers 35 acres. An important addition to the city was a new 16 acre park at Bucknall costing £32,000, opened on July 25th, 1956, by Alderman G. L. Barber, former Chairman of the Parks Committee. The park was laid out on the site of a former sewage works and pumping station. Two of the pump houses have been allowed to remain. Part of the land was also raised to prevent flooding. Like most of the city parks the new park at Bucknall has a children's recreation ground and football pitches. The park which meets the needs of about 37,000 people has two bowling greens, five tennis courts, and a putting green. There is a pavilion for the use of old people. Alderman Barber who had been for five years Chairman of the Parks Committee, headed a civic procession into the park with the Lord Mayor and Lady Mayoress of Stoke-on-Trent, Mr. and Mrs. W. Bailey.

Apart from the parks it has been the desire of the committee and the corporation to do their utmost to improve the appearance of the city and this was first considered at a special meeting arranged by the City Council in January, 1949. At the meeting were members of various committees of the City Councils, pottery manufacturers, traders' associations, trades and labour council, Rotary clubs and many other people, including Mr. Ellis Smith, M.P. A result of the conference was a serious attempt to tidy up derelict areas of the city, and, where possible, make them into gardens. With

pit mounds one feels that it is likely that these will disappear only gradually and be useful material for road making or to help fill up existing marl holes. Some of these marl holes are very large and take much filling in, but the sites will be unsuitable for the erection of heavy buildings. Twenty years ago such a marl pit at Harpfields—on which a school playing field is at the moment (July 1958) being laid out with soil and seed—was a small deep lake which had occupied the entire area of the field.

The approaching coronation of Queen Elizabeth II added a spur to improvements. By 1952 the Northwood playing fields had been levelled and virtually completed. In addition between 1949 and 1953 traffic islands had been planted out and gardens made on various pieces of ground such as at the junction of Piccadilly and Albion Street, once the site of the King's Head Inn.

Gardens were also laid out at Trubshawe Cross, Longport, in addition to gardens in front of the Workshops for the Blind of Fenton and numerous other small improvements.

During the Festival of Britain year alone (1951) the City Council provided 28 roadside seats and planted 75 trees in different parts of the city. The Green at Harpfield, once a waste piece of ground is now a delightful garden with lawns, trees, flower beds and seats.

In the Coronation Year (1953) 1,200 trees were planted along the highways and on housing estates. Gardens were laid out on the site of the Old Court House at Longton, on a triangle of land at the top of Havelock Place, Shelton, which had once been derelict. Formerly on this spot a large house with a short carriage drive had stood before road widening at this spot—which later also took a sizeable piece of the grounds from the front of Grove Lodge, the walls and gates of which were taken back a number of yards.

The major work of the Coronation projects was the boulevard at London Road, Stoke, already described, and extending for about one third of a mile between Sheppard Street and Holly Bank Crescent. Here, trees of sturdy growth line the site of the old canal, now gardens.

The churchyards of the district, with the consent and help of the church authorities, are being turned into gardens by the Corporation Parks Department. Shelton and Penkhull churchyards are excellent examples of this work. In April-May, 1959, the crumbling grave-stones in the immediate vicinity of Hanley Parish Church were removed and lawns laid out. In addition the city authorities recommended that the £10,000 scheme for similar improvements in the very large churchyard at St. Paul's Church, Burslem, be approved.

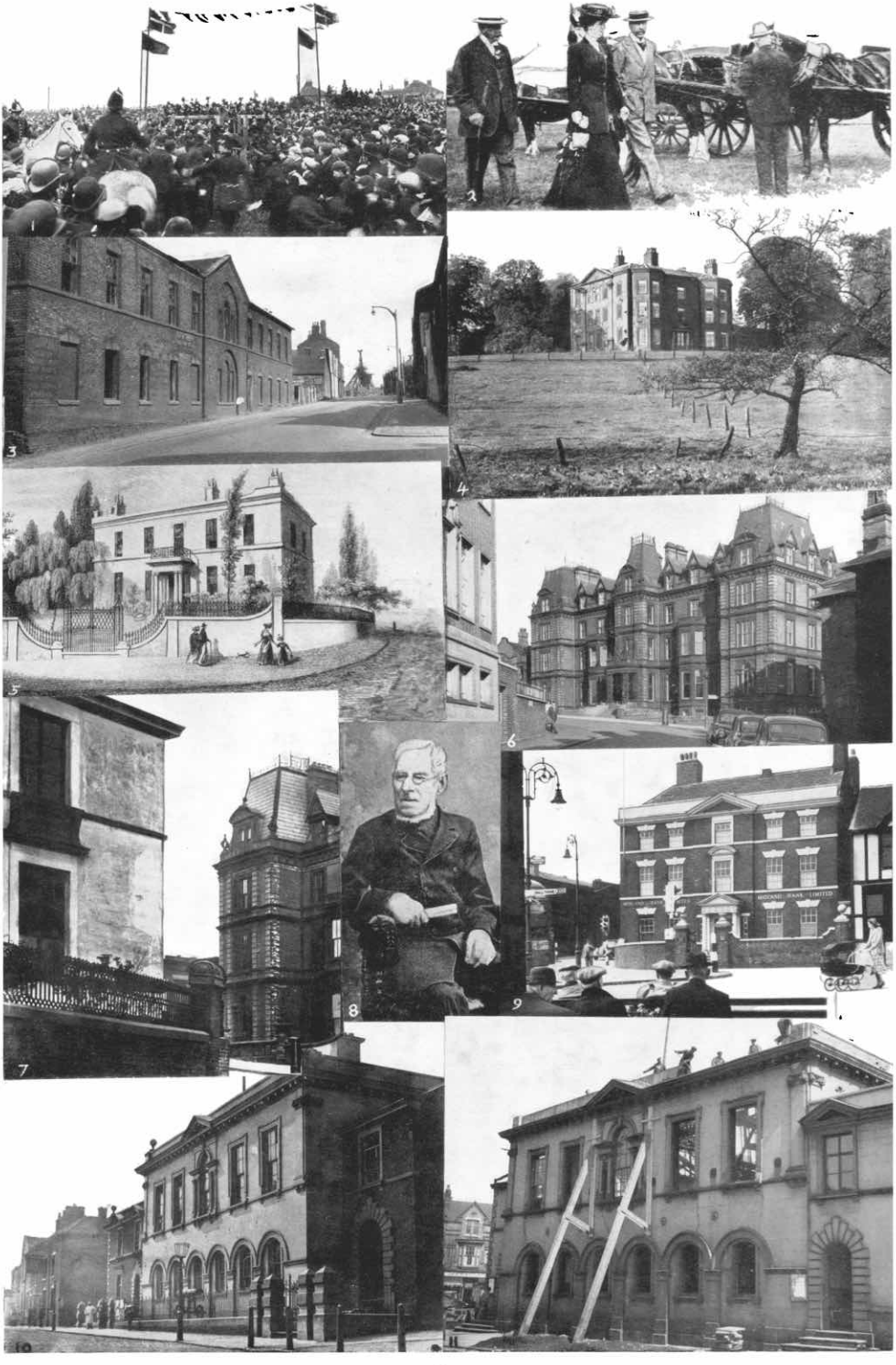
A £6,000 scheme for the laying out as gardens of St. James' Churchyard, Longton, is likely to start later this year (1960). It will be necessary to add large quantities of soil for the graveyard, blackened by deposits of soot, is barely capable of growing even coarse grass. The passing of the interesting and very old head-stones in these churchyards although regrettable is inevitable.

From Sunday, May 4th, 1958, as a result of a decision by the City Council, organised games have been allowed to take place in the city, and in the parks, tennis, bowls

and other such sporting activities can take place. Such is the change in the social outlook in the Potteries and is a contrast with the controversy that raged at the turn of the century (1902) when the topic in the street and in the *Sentinel* was whether " pot-girls should walk in the parks in summer dresses of crushed strawberry." This " offence against good taste " seems to have first been witnessed in Longton Park and the " offending " pot-girl was described as a " vision in crushed strawberry." The writer alleged that " such clothes were usually obtained . . . through a clothing club . . . and therefore stopped the girls from saving and lured them into premature and unwary marriages." The article brought a storm of protest by letters to the *Sentinel.*

Today (December 1959) the cost of the upkeep of the parks amounts to one penny a head of the population, per week, declared the Lord Mayor (Alderman Harold Clowes) who is also chairman of the city finance committee. This seems a modest price to pay for the use of over 878 acres of park lands and recreation grounds. Hanley Park, the largest (1959) covers 72 acres of land. The natural lake and fields at Smithpools, Fenton, when completed as a park, will cover about 60 acres. In addition there are many recreation grounds and also over 200 flower beds in city streets, together with some 400 acres of school grounds and gardens which were taken over by the Parks Department, in July, 1959. As already mentioned the department, under the Park's Superintendent (Mr. Percy Dyer) and his staff of 350 gardeners has, and is laying out, many of the city churchyards as gardens. In addition there are the new Trubshawe Playing Fields in the Sytch Valley at Burslem. Once a picturesque area, this has largely been filled in by tipping, over a number of years and is now many feet above the old level.

The National Playing Fields Association recommends a minimum of seven acres of parkland, one of which is ornamental, to every 1,000 of the population. In Stoke-on-Trent there are just over two acres to each 1,000 of the population whilst the national average is of $3\frac{1}{2}$ acres to each 1,000 of the population.



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1. A photograph thought to depict the turning of the turf ceremony of Hanley Park in May, 1892. Animated officials on the platform are cheering and waving their hats.

2. Millicent, Duchess of Sutherland (President) attends an early Hanley Horse Parade.

3. The remains of Neale and Wilsons manufactory in High Street (now Town Road) Hanley, in August, 1951. Here the "Rough Fleet," led by Jack Wilson, would roam. Faded writing on the centre of the building reads : "Willow Pottery Churchworks." The site is occupied by the King George VI Pensioners' Club and other buildings.

4. Longton Hall (looking towards Blurton), from a photograph by Mr. W. J. Blake, about 1895. In a beautiful setting it was the scene of some tragedy. Derelict for many years and "haunted," it was pulled down in 1938.

5. Albion House, Shelton, at the top of Pall Mall. It was partly destroyed by fire during the Chartist Riots of 1842. It stood well out into the then narrow Albion Street. The wall and iron gates survived well into the first quarter of the present century.

6. Town Hall, Hanley, which had been built as a hotel. Today it houses Police, Education Offices, Public Rooms and a Magistrates' Court. It was in such a Court at Stoke on Friday, January 29th, 1960, that Mr. R. N. Macgregor Clarkson, the City Stipendiary Magistrate, sat for the last time after 20 years' service. It might be said that he administered with justice, humanity and humour.

7. A corner of Albion House. Portions of the iron railings and fan-shaped carved stone copings could be seen until very recent times.

8. Samuel Swann, said to have been the last Watchman of Hanley.

9. The Midland Bank, Burslem (1957), once known as The Big House. A man was killed outside the house during the Riots of 1842.

10. Longton Court House, about 1870. The Russian gun, a Crimean War trophy, was placed behind the railings in June, 1867.

11. The demolition of the Court House, Longton, in May, 1950. It stood at the junction of Uttoxeter Road and Commerce Street.

CHAPTER 12

Police and Fire Services

As far back as records go people in general, as subjects of the Crown, were all supposed to be " keepers of the peace," and an Act of 1327 ordered the appointment of " Keepers of the Peace " in every county whilst an Act of 1344 stated that " two or three of the best reputation in the counties shall be assigned keepers of the peace by the King's commission." It was not until 1360 that the term Justice of the Peace was first used. The J.P. was a man with a multitude of duties connected with local government and the law and this state continued until the Local Government Act of 1888 stripped the justices of their " thousand and one administrative duties which five centuries of legislation had put upon them."

In those far away years that strange being, the Beadle, often a workhouse tyrant was a type of keeper of the law, although he probably originated as a civil officer who later assisted the church wardens. He very early appeared as an official of the manor courts, as at Tunstall Courts Leet. He was often in charge of the beggar, the tramp and the scalliwag and although distinct from the constable was often sworn in as an assistant to him.

The Parish Constable is represented in manorial history by the Headborough, Tithing man or Borsholder who was assisted by watchmen. The Parish Constable and his " round house " or " lock-up " has vanished into history and his disappearance saw the passing of the old principle of English justice which was the responsibility of village communities to preserve law and order.

Hanley had its " lock-up " within the old Market Hall, a crude structure established in 1790 on a site now occupied by Lloyd's Bank. At the north-east corner were " two very secure dungeons and lock-ups," each made to hold one person. No traces remain in the towns of Stoke-on-Trent. One of the oldest punishments was by ducking stool used largely as a form of correction for women. At nearby Newcastle the Branks were used—a form of iron mask—padlocked at the rear and placed on the prisoner by order of the magistrate. This form of punishment was used more often on women who exercised their tongues " not wisely but too well." Incorporated in this grim contraption was an iron tongue-piece which was thrust into the victims mouth. A ducking stool was used in Hanley and the offender lowered into Clementson's Pool, which existed in what is now Broad Street. Wooden or iron stocks in which the legs of the victim were clamped were also used in the Potteries. Here the prisoner had to sit listening to the comments of the passer-by and no doubt suffer other indignities. Unfortunately many of these stocks no longer exist. A set of cast-iron stocks can still be seen in the Hanley Museum. Some stocks stood in front of Hanley Parish Church and later on ground on the north-east side of the old Market Hall in Hanley. Other stocks are said to have existed at Brockley's

Square or entry " at the top of Trinity Street when it used to be a very narrow entrance to the town of Hanley." Brockley's Square was so named after Mr. Brockley, a marine store dealer and keeper of a public-house and cook shop. In the upper corner of this square the first police station was said to have been situated.

At Tunstall the stocks stood in front of the old Town Hall then situated on the site of the present clock-tower. The original stocks were of wood and were used until they fell to pieces with age and replaced by iron stocks. These stocks were last in use in 1852 when Constable John Smith, who was also a Tunstall butcher, released a Pittshill man from them after serving a sentence. The man was more intoxicated than when he had been placed in the stocks by the constable. This was due to the common practice, made by friends of prisoners, of supplying strong drink to them—usually in a tea-pot! Sentences for being " drunk and incapable " usually took the form of a 5s. fine or 6 hours in the stocks. The stocks were removed to a yard behind the police station where they remained until the close of the century. They were used, in the main, for drunkards. One finds no records of the grim gibbets—inverted L shaped posts from which criminals were hanged—and the nearest appears to have been in Newcastle where it was said to have lain in the town yard in the early part of the present century. Punishments were severe and as late as 1800 a boy living at Etruria was convicted of stealing sixpence and was condemned to be hanged, a sentence that was eventually carried out.

During the years 1808 and 1809 the neighbourhood of Hanley was disturbed by a gang of youths known as the " Rough Fleet," the leader of which was a man named Wilson, who strangely enough was the son of an earthenware manufacturer whose factory and house stood on ground partly occupied today by the George VI Pensioners Club, in Town Road, Hanley. Nothing remains of the old buildings, which later belonged to Joseph Mayer, except the elegant doorway of the house which is to be seen to this day fronting a house in Mayer Street, Hanley. At night in the unlighted streets, the Rough Fleet and their leader would waylay, beat up and rob the people of Hanley. The three old watchmen, and the constables were helpless. Often the gang would, in various parts of the town, overturn the heavy sentry boxes in which the constables used to shelter on wet nights. The poor men were left beneath them until some kind person released them. Sometimes a member of the gang would parade the Hanley churchyard dressed as a ghost and ring the bells of the church in the middle of the night. One youth was killed whilst trying to gain access to the belfry by climbing the lightning conductor which gave way. In an accident with a gun, Jack Wilson killed his brother. He never recovered from the shock and eventually died in the workhouse.

From the evil works of the Rough Fleet probably came one good result. It was the determination of the people of the Potteries at least to attempt the stamping out of lawlessness. They had some measure of success, ably assisted by members of associations formed to deal with just such lawless members of the community. These were known as Associations for the Prosecution of Felons. The Hanley Association claims foundation in 1792, whilst the Penkhull Association publicly announced, on Saturday, February 16th, 1811, that an annual meeting was to be held at the

Black Lion, in Penkhull Lane, on Wednesday, March 6th, when persons desirous of becoming members were requested to attend at 2 o'clock. Previous to this announcement, 19 well known people of the period had formed a society " to pursue, and prosecute, any person or persons who shall commit or attempt to commit, any felony or robbery, against or upon our persons or property." Rewards were offered by the members " for any person by whose information any offender shall be convicted of any capital offence." These rewards varied in value according to the offence. For any person by whose information any offender was convicted of any capital offence, the sum of £10/0/0 was offered. If the offender was sentenced to transportation the reward to the informant was £5/5/0. For the conviction of any servant who sells coals, hay, straw, or any other article from his master's waggons or carts, the informer received £1/1/0. The informer of any person convicted of receiving such goods gained £1/1/0. Ten shillings and sixpence went to the informer of any convicted of " breaking through or pulling down gates and fences, for the purpose of turning in cattle," and a similar sum to the informer resulting in the conviction of any person stealing posts, rails, hooks and thimbles. A fee of £1/1/0 went to every toll-gate keeper by whose information any highway robber, or stealer of horses, cattle or sheep was apprehended.

In October, 1811, one finds that the Stoke-upon-Trent Association had formed their own body for the prosecution of felons and gave a similar list of offenders " recognisable before the civil magistrate." In addition to the rewards, expenses were allowed by the courts to the informants for travelling and work-time lost.

In 1813, a table of allowances for prosecutors and witnesses travelling distances to attend the prosecution of felons at the Assizes and Sessions of the Staffordshire County, received the sanction of the judges. It was: For less than 16 miles 7s. 6d.; 16 miles and under 25 miles 10s.; 25 miles and upwards 15s., and to surgeon's and professional men who attend the court £1/1/0 per day.

Today these associations are pepetuated by annual dinners and socials in the Potteries, but in their formative years they meant business and were a main-stay of the law as it then existed. This does not mean that social activities were excluded in the early years of the associations. At the first annual meeting of the Stoke Association for the Prosecution of Felons, held in early October, 1824, at the Talbot Inn, members were " regaled with an excellent and substantial dinner." Reference was made also to 15 new members and to the benefits arising out of the nightly watch established by the association.

The Burslem, Cobridge, Longport and Tunstall Association for the Prosecution of Felons undoubtedly existed before 1812. At the annual meeting held in Burslem, on December 30th, 1813, William Adams, Junior, as Treasurer, and James Preston, Solicitor, gave a list of 37 wellknown people who " having entered into an Association for the purpose of prosecuting at their joint expense, all persons committing Depredations upon their persons and properties, give public notice of their intention to take under their protection any person who may give such information. . ." The list of rewards was similar to those of the Penkhull Association but had additions such as: £5/5/0 to the informant resulting in a " commitment

of an offender for Stealing Earthenware or Colour from any manufactory or mill," with a further £10/10/0 on conviction of the offender! This association, composed as it was of prosperous manufacturers, was able to offer high rewards. The stated ideals of the Burslem Association were high. At this meeting they agreed "that all industrious and honest persons, who may . . . have acquired a small property . . . and who may be unable to support a Prosecution, shall be considered as entitled to their protection (the Association's) . . . and shall be assisted with such sums for Prosecuting to conviction, as the Committee may judge proper."

About this time, 1813, the townships of Hanley and Shelton became a market town by an Act of Parliament and an annual appointment of a Head Constable to instruct the ordinary constables in their duties was made. In Hanley and Burslem this system lasted until the " Act for Watching and Lighting " these towns in 1825.

Personal rewards were also offered for the apprehension of offenders in addition to that offered by the Felon's Associations. In Hanley, on July 27th, 1824, Daniel Shufflebottom, tailor and draper of Shelton, offered ten guineas reward to anyone who could give information leading to the conviction of " some evil-disposed person " who entered his shop and removed most of his cloth and stock.

Early in October, 1824, a meeting of the Sub-Committee of the Pottery Police was held to confer with the Magistrates of the district respecting a plan for holding a weekly Petty Session in the Potteries. This resulted in the holding of Petty Sessions on alternate Tuesdays. The first was held by Magistrates G. Tollit and F. Twemlow, on November 30th, at the Swan Inn, Hanley. At the meeting more than forty townsfolk were sworn in to be Special Constables for the township of Hanley and Shelton, the inhabitants of which had established a " nightly watch " for their protection throughout the winter. These constables patrolled te area, equipped with a truncheon and candle lantern.

This was all part of the work of the General Committee of Police of the Staffordshire Potteries whose report was approved at a meeting of the townspeople at a meeting in Hanley on December 10th, 1824, with a view to establishing a general police throughout the Potteries. To this, 105 prominent inhabitants at Burlem promptly objected. Burslem signified its intention of applying to Parliament for an Act to establish a local police " within this district of the Potteries." This opposition resulted in a further meeting of the Police Committee at the Swan Inn, Hanley, on December 21st, 1824, with Mr. R. E. Heathcote in the chair, when it was decided that " it will be useless to proceed further in any general measure of Police for the Potteries at large, and it will now devolve upon the parish of Stoke collectively, or the Townships separately, to substitute measures as they may think proper." All outstanding accounts against the Committee were discharged and a statement of accounts and closure issued to the public.

The towns did try to make effective the measures they thought necessary. Indeed it would seem that the difficulties had been forseen, for early in the previous month, November, a public notice appeared in the " *Pottery Mercury* " indicating that the district was to move as a whole in the matter and mentioned the intention of applying to Parliament for one or more Bills for Watching and Lighting the district of

the Staffordshire Potteries and for maintaining effective police, erecting a Court House and Prison and for the more effectual administration of the office of a Justice of the Peace. Also a rate was to be levied to cover all costs. Is seems, however, that unanimity was not immediately achieved, but Burslem, Longport, Cobridge, Sneyd Green, Hanley and Shelton gained their Watching and Lighting Acts in 1825.

That this need was urgent was made clear by the increase in crime at the time. The newspaper, *The Pottery Mercury,* of March 30th, 1825, records that the Pottery Central Association for the Prosecution of Felon's within the township of Hanley and Shelton had increased their rewards " in order the more effectually to promote the intention of this Society." For a population of 50,000 there was not one acting Justice of the Peace in the whole of the Potteries area. Volunteer inhabitants patrolled the streets from 10.30 p.m. to 5.30 a.m. At Burslem, over 200 inhabitants had formed themselves into patrol parties, sixteen being out each night. Visiting magistrates were also at a disadvantage in not knowing the district or its people. An example of this took place in 1825, in Burslem. The magistrate, Mr. Simpson, held court and was trying a local pickpocket who was defended by a notorious lawyer of the time, Thomas Jones. The two crossed swords at the onset of the case, the magistrate being " nettled " by the impudent tone of the lawyer's opening defence, interposed with the words " who is this fellow? Where does this attorney come from?" To which Jones replied: " Does your Worship apply the word 'fellow' to me? If so, I give you the word back with interest. You are a fellow—a dirty, dull fellow!" The outraged magistrate had Jones committed for contempt and locked up in the police cell, an indiscretion for which he was to pay dearly. Equally furious, Jones issued an action against the magistrate and honour was eventually satisfied by the awarding of heavy damages and a public apology to lawyer Jones who lived comfortably on the award. When he died, he was buried in St. John's Church-yard, Hanley. The story is delightfully told at length by Henry Wedgwood, in his " Romance of Staffordshire " and whose son was well known to the author of this work.

One year later, in May, 1826, the election of a Coroner for North Staffordshire took place at the Shire Hall, Stafford, one person from Hanley and one from Newcastle being proposed for the election. The freeholders in the Potteries and Newcastle showed their support to an extraordinary degree. " The roads leading from these towns to Stafford were thronged with vehicles . . . from the stage coach, to the pony gig. After the turning over of cars, the running foul of wheels, the throwing of horsemen . . . and other such like occurrences, the freeholders entered Stafford." Mr. Dent, the Potteries candidate gained a majority of 44 votes over Mr. Hyatt of Newcastle. The Coroner elected had been proposed by Mr. R. E. Heathcote, then residing at Longton Hall, whose name recalls a typical example of justice in the district in that year, 1826. It concerned a labourer on the Longton Hall estate whose pay was 2s. 5d. per day. The case drew attention to the fact that convictions at law, by means of expenses coupled with them, were too frequently made the instruments of punishment and disproportionate to the offence committed. This man whose character from Mr. Heathcote's records was " of perfectly honest, industrious, unimpeached character," was passing with his son near Cocknage after Sunday morning church

service when they beheld a hazel bush in an adjoining coppice. " The fence was crossed, and the valuable fruit plucked." Man and boy were seen and a summons followed with conviction and fine of six-pence (not unreasonable), but then followed " the bill of costs," which if not met meant committal to prison. The costs were as follows: Summons, 2s.; Being Convicted, 2s. 6d.; Constable, 4s.; (the Informers'), 3s.; Damage, 6d.; Total 12s. Unable to pay, " the poor fellow was this morning dragged in Hand-Cuffs . . . and lodged in the County Gaol," for two months imprisonment—the penalty for having taken half a dozen common nuts, the damage being no more than six-pence. If such cases were somewhat severely treated some cases were treated with terrible severity.

A bull-baiting case took place in Hanley in August, 1826, and a year previously (1825) a Coiner's Den was located in Hanley resulting in a punishment of execution. The case was extraordinary and concerned the discovery of a mysterious covered travelling van in Foundry Fields, Hanley. These fields, parts of which were marshy, occupied ground which is now Trinity Street, Foundry Street, much of Marsh Street (North) and New Hall Street. These fields were split up by the Canal Company who ran a tramway through what is now Trinity Street. The tramway was walled up on each side (one wall remaining for a long time) and at the bottom there was a pair of gates which were locked at night. Behind the Street Railway Office was a stagnant pool (used during the 1842 strike as a place of punishment for " knobsticks " the old-time name for " blacklegs "). At the time of the discovery of the " mysterious van " there was on the borders of the Foundry Fields an old public house known as the Hare and Hounds in Marsh Street. It was surrounded by a large yard in which for about four months had been stationed a strange looking covered van. This was ostensibly used for the sale of hardwood and bearing the name of T. Gill, Leeds.

At this period a large amount of bad silver coins were found to be in circulation in the Potteries and it became obvious that counterfeit coin was being distributed from a depot in the district. Suspicion eventually centred on the old van, and on Sunday, May 26th, Constable John Forrester visited the public-house and inside the van discovered a number of casks mostly filled with unstamped black pieces of metal, silvered over, and of half-crown size. The constable turned to arrest the owner, a man named Theodore Moore, only to find that he had taken the opportunity to escape. His brother-in-law, named Lawley, however, turned king's evidence. Dense crowds gathered to witness the removal of the casks which were carted away under the direction of the Constable of Hanley, Joseph Locker. The base coin weighed between three and four hundredweights and plant was also found for making the discs, but no stamping machine was discovered. On the way one of the casks burst open and there was a wild scramble for the blanks.

It was some time before Theodore Moore was captured. He had a residence at Oulton, near Stone, and was well known in Yorkshire. Evidence given by the keeper of the Blue Bell Inn, Burslem, assisted the constabulary in arresting the coiner and capturing his plant. Constable Barton visited Moore's lonely cottage at Oulton and in the cellar, reached by a hidden passage, he found a deep hole into which a block of machinery found in the van fitted perfectly. The hole was well padded and packed

with wool and straw to deaden the noise of the machine when in operation. It was found that Moore had a private room at the public-house in which he received his clients on fixed days. One customer alone is said to have taken 400 dozen of base half-crowns at a time. Unable to find Moore, his wife was arrested at a house in Burley Dam, Shropshire, where there was further coining apparatus. The plan worked well and Moore, faithful to his wife, arrived to protest at this injustice and was himself arrested. Records show that " on a beautiful May evening " Moore was brought with his wife to Hanley, the streets of which were lined with hundreds of people. Feeling ran high against him for countless inhabitants possessed his worthless coins. Moore appeared at the Assizes in July, 1825, and put up a great fight for his life—to such an extent that the case was deferred until the next assizes when he appeared before a full bench of judges. In March, 1826, sentence of death was passed upon Moore. He was dragged, struggling and protesting his innocence from the dock. Iron files were found on him in the condemned cell from which he hoped to escape and he so believed in either his ability to escape or his eventual reprieve that he wrote to his wife asking her to be at the gaol gate with his clothes on the very morning on which he was executed, ironically, April 1st, 1826. The old house in Foundry Fields, Hanley, long a place of interest, has now passed into oblivion.

In June, 1839, the Potteries Stipendary Act was passed. This was brought about by the dearth in the district of suitable gentlemen qualified to serve as magistrates. Under the Act a Stipendary Magistrate still exercised jurisdiction side by side with the County Magistrates in the district. This magistrate, so elected, had to reside within the Borough of Stoke-upon-Trent, or within two miles of the North Staffordshire Infirmary and was liable to attend a suitable place five days in the week to administer justice in the towns of the Potteries. His salary was £800 a year. Lock-ups were provided and he had the assistance of Chief Bailiffs, Head Constables and Commissioners. Mr. T. Bailey Rose, of Penkhull, was elected and was assisted by his brother, John Randolph Rose, as clerk to the court. In the same year, 1839, County Authorities were empowered to appoint a police force in their respective areas and the Potteries was policed until 1870 by the Staffordshire County Constabulary. Also in September of that same year the Hanley Borough Police Force came into being.

In less than a year Mr. Bailey Rose was dealing with many cases, several of which make interesting reading occasioned by change and the lapse of time. Consider the area of Hot Lane, Burslem, today, with August, 1840, when Thomas Willott and Enoch Mountford were charged with damaging a large quantity of growing oats at Hot Lane. Here they also damaged a field of corn and a field of potatoes. Mr. Heath, agent for the owner, Mr. C. H. May, said. " If thirty head of cattle had been turned in they could not have made it worse." The cause had been the stealing by the men of "a large stone bottle containing a quantity of rum," belonging to Mr. Broughton of the " Dog and Partridge " public-house, Hot Lane, who had entrusted the rum to the care of a boy to carry to his house from the Race Course and who appeared to have been waylaid by the two men who had then retired to the above mentioned fields to " make merry." Lack of witnesses saved these men from more severe consequences

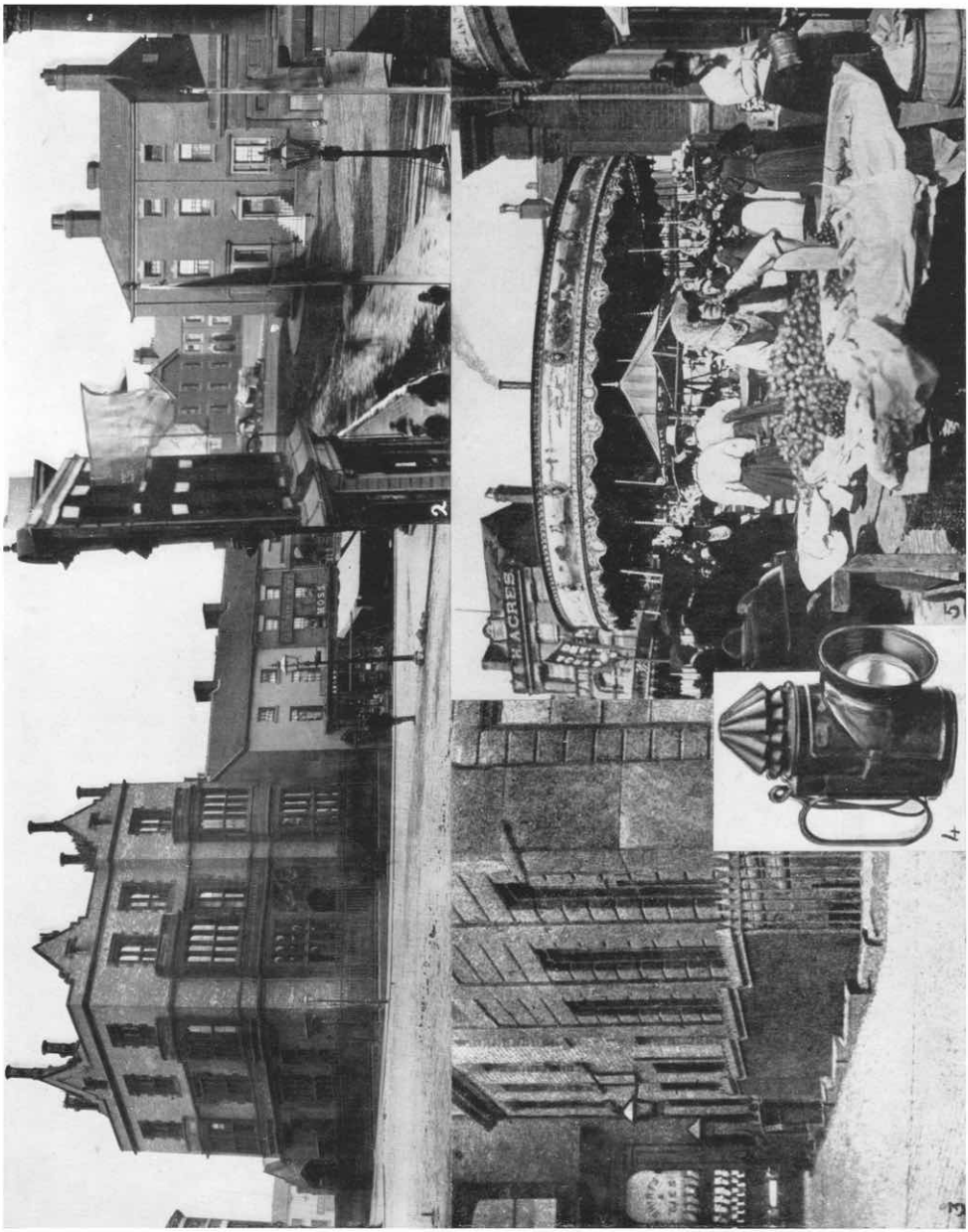
for, at that time, stealing carried a maximum penalty. Indeed, in September, 1840, Mr. Rose committed a boy, John Askey of Hanley, to the sessions for stealing a pair of boots belonging to Joseph Whitehead a shoemaker in the Woodison (Marsh Street). The wretched, ragged boy had pleaded that he had no boots to wear. In the same month a Mr. Paddock was charged at Hanley with damaging 22 yards of footpath in Hope Street by getting marl from under it. This case was adjourned for Mr. T. B. Rose and Mr. Job Meigh to inspect the damage. Mr. Paddock, who was about to build on adjoining land, claimed that it was his property but was fined £1 6s. 7d.! Mr. Rose was somewhat severe, but just. At a Longton court (held in a room at an hotel which then stood on the site later occupied by the Eagle Vaults) he declared that he would make the people of Lane End (Longton) so dread breaking the law that he would be able to hang his watch in the Market Square overnight and find it there the next morning.

Highway robbery was not uncommon. On the last Saturday in November, 1840, people living at Basford Lodge, on the bank above Etruria, " were alarmed by the shrieks of a female " and on going into the road found a woman who said that a man had sprung out of Rogue's Lane (so named for this very reason) as she passed and had taken her basket with upwards of £1 in money. Highly alarmed the woman had got to her feet and was seen running towards Hanley. On the following morning her basket, without the money, was found at this lonely spot!

In September, 1840, at Hanley, Mary Taylor, a disorderly character and another women were charged with trying to rob a man " of respectable appearance." Hackney, one of the Hanley watchmen, declared that he had heard a scream of " murder " in Albion Place, Shelton, where he found the three struggling. The culprits were sentenced to one month in the house of correction!

Indeed, the Potteries was no haven of virtue and such cases were commonplace and immorality almost a matter of course. At Burslem, in September, 1840, a scream of " murder " was heard in the Hole House area after midnight. The man was a William Radford Pichard Hall and the woman Ann Humphreys. The watchman intervened and the " language used by the woman surpassed, in obscenity, all he ever heard."

On September 29th, 1840, the first of the Courts of Pleas, commonly called the Three Weeks Court, was held at the Saracen's Head Inn, Shelton (the site is now occupied by the Telephone Buildings on Crown Bank, Hanley). This inn, once called the King's Head Inn with the address of King's Head Bank (Crown Bank), was probably before the King's Head Inn was built at the bottom of Piccadilly, Shelton, about the year 1810, and which as stated in an early chapter was a coaching Inn with good stabling facilities. It stood at the top of Shelton on open ground at the junction of Marsh Street (Woodisun) and Piccadilly. Piccadilly at this time had just been made and was a new street. A considerable amount of land in this area was put up for sale in September, 1812, which included also " a compleat Dwelling-house, with the Warehouses, Work-shops, Hovel, Packing-house, & c, adjoining to the said King's Head Inn, and now (1812) in the occupation of Mr. John Sherwin." These premises were used at this time in carrying on the business of enamelling, gilding


MOSS
ACRES

1. Market Square, Hanley, about 1875, showing the District Bank erected about 1833. It was reconstructed in 1881.

2. Burslem Police Station and Police Superintendent's house in 1887. The carts in the picture mark today's Tunstall 'bus stop, whilst the houses of Jenkins Street and Price Street are seen beyond.

3. Entrance to the old Police Station on the north side of the old Town Hall, Fountain Square, Hanley, about 1883. Lloyds Bank now occupies the site.

4. Police "Dark" oil-burning lantern. It was in use in parts of the Potteries as late as 1931, when it still formed part of the equipment issued to policemen. A rotating metal shutter allowed a sudden and powerful beam of light to pick out the law-breaker after dark. The lantern was popular as a hand-warmer. The police force within the city today totals 394 which includes 16 policewomen and 10 cadets with an additional 210 men and 15 women in the special constabulary. There are also two trained Alsatian dogs and horses, the latter used mostly for controlling large groups of people.

5. The Wakes Fair was held in the Market Place, Hanley, and in the streets surrounding, for the last time during the August Bank Holiday week in 1922. This remarkable scene was taken from Tontine Square and shows a section of the wakes in Parliament Row. Acres' shop, built 1891, was demolished and today Woolworth's stands on the approximate site. Allbut and Daniel's printer's shop, now replaced by the Gas Showrooms, is seen on the extreme right. Pat Collins, undaunted by the removal of the Wakes Fair from Hanley, enforced by the traders and Corporation, opened his Fair at the Regent Road Ground, Hanley, on Saturday, August 4th, 1923.

and lustering earthenware. House and cottages in Piccadilly had pleasant gardens. House number 155, near to the King's Head Inn, had its garden wall taken down and set back to widen the 360 yards of footpath in Piccadilly in 1859.

At these Three Weeks Courts, residents from a very wide area could obtain justice for " all debts and damages under £2 for goods sold, servants' wages, labourers' hire, agistment of cattle, rent, money lent, trespasses and other diverse matters, are recoverable."

Signs of more serious disturbances were showing in the Potteries in 1840, and within two years Mr. T. B. Rose and his watchmen were to have their hands full. What was described as " a more tame exhibition never was made in the Potteries " eventually turned into " a gigantic strike and violence of which the like had not since been seen in Stoke-on-Trent." The scathing quotation refers to the Pottery Chartists at a meeting held on Monday, April 20th, 1840. The meeting held by the permission of the Chief Bailiff in the Market Place, Hanley, was peaceful. Mr. Capper, of Tunstall spoke first and handbills stated the object of the meeting, namely, the petitioning of the House of Commons to address the Queen to dismiss her present ministers, who it was claimed were plundering the people by spending £50,000 a year upon a foreigner (Prince Albert) and £70,000 on her Majesty's horses.

The handbill demanded new ministers—pledged to make universal suffrage—also to grant a free pardon to Messrs. Frost, Williams and Jones and " all persons incarcerated for political offences." Despite its being holiday time less than 200 persons were present. The meeting closed with a vote of thanks to the Chief Bailiff and the *North Staffordshire Mercury* in its report of the event made the remarks already quoted. To the upper-classes of the Potteries the meeting was a warning unheeded. The ultimate result was that two years later, on August 15th, 1842, the local police had a full scale riot on their hands. It must, however, be stated that the Potteries was not alone in these matters. Chartist riots and meetings were taking place in many parts of the country—part of a widespread campaign.

The Chartist riot coincided first with the great strike of miners who struck at Longton in July and who had refused to accept a pay reduction on their 2s. 6d. a day wage. The result was a mass-meeting on Crown Bank, Hanley, which became completely out of hand. A wild mob destroyed property in the various towns. The house of the Stipendary Magistrate, Mr. T. B. Rose, at " The Grove," Penkhull, was partly destroyed. As the mob approached this house a small girl, Mary Steel, who lived at the top of Doncaster Lane, was given charge of the jewellery, plate and the family Bible and unnoticed managed to transfer her valuable load to her father's property where she hid it in a pig sty until the mob had passed. At Shelton, Albion House, the home of Mr. Parker, a magistrate and retired businessman, was set on fire by the mob. The house stood on ground the rear portion of which is now occupied by an ornamental rockery garden adjoining the offices of the Economic Building Society, at the top of Pall Mall and Cheapside, Hanley. Only a small portion of the original wall remains. The approach to this house, Albion Street, was then known also as Joe's Lane which led to Dimmock's Pottery Works (demolished in 1905) which occupied the whole of the Essoldo Cinema site. Hanley Rectory was likewise treated after

the wild mob had emptied the cellar of wines. They also attacked the Hanley Police Office, releasing the prisoners, destroying police records and finally wreaking their vengeance on the furnishings and buildings. Proceeding through Shelton (much of which was then in the Hanley we know today) they entered the Court of Requests destroying all papers, records, and furniture in addition to violently assaulting the clerk to the court. On arrival at Stoke they attempted to burn down the police station. Here Superintendent Stonier was badly hurt, but he and his men put out the fire. At the Spittles workhouse and parish offices, all the rate books were destroyed. Fenton escaped to some degree owing to the presence of the military which protected the police station and intercepted a section of the mob, but a large section of the procession of Chartists, miners and others carried on to Lane End (Longton) where they joined the large crowd already assembled there. Here, an open-air meeting was in progress. Shops were ransacked and the house of the Rector of Lane End, the Rev. Benjamin Vale, was destroyed by fire after the wine and beer had been consumed and all the furniture smashed. Soldiers from Fenton arrived and a number of the rioters were arrested. Providentially during the first day of the riots no one was killed.

At nine o'clock on the following morning, August 16th, vast numbers of rioters entered the town of Burslem and assembled in front of the " Big House," later used as a Conservative Club and today the Midland Bank. The crowd was joined by weavers and farm workers from Leek, Congleton and Macclesfield who came mainly from the direction of the old Hamil Road. It was estimated that 20,000 persons took part in the riots and that 700 prisoners were taken to Stafford Gaol, of whom 250 came from the Potteries. Great crowds converged from Hanley and elsewhere and became a solid mass at Swan Square, where the old George Hotel was broken into and ransacked. " The Battle of Burslem," as it was called, had started. Captain Powis, a Justice of the Peace, read the Riot Act from horseback, but in vain. It was but a formality heard by few. Afterwards he handed over to Major French, in command of the military, who assembled his soldiers in front of the " Shambles," " in rows of three or four abreast, one behind the other." They were met by the defiant cries of the crowd and a volley of stones. A special constable, one of the 200 assisting the troops, records in his personal notes that: "An order to fire was given, and the men in the front row discharged their guns and wheeled round to the rear, the second row did the same, and then the whole column dashed forward into the mob. A cloud of dust of such density as to partially obscure from view the spectacle the poor wretches presented in their desperate efforts to rid themselves of their pursuers, added to the confusion and one 19-year-old man who had come from Leek was killed in the firing and seven wounded. I saw the brains of the unfortunate man, who fell, lying upon the footpath a little to the south-west of the 'Big House.' Afterwards I saw the body laid on the ground floor of the old Town Hall."

This is but a brief account of the reign of terror in the Potteries which resulted in 54 men being sentenced to transportation for periods ranging from seven years to life, whilst 146 were sentenced to hard labour. One of the most remarkable men of the whole rising was the Chartist, Joseph Capper, the Tunstall blacksmith. Capper was a staunch Primitive Methodist, having been converted at the great Mow Cop camp meeting in 1807, and after working hard in his forge he would go forth to preach the

gospel. He was a foundation member of the first building society in Tunstall. To the actual outrages, it is thought, Capper gave no active support, but he was arrested for sedition whilst at a family Bible-reading. At his trial at Stafford in October he was sentenced to two years in prison. He was then over sixty years of age. When asked to explain why he had declaimed so repeatedly against the Established Church said: "I have made all the iron spars for Tunstall Church steeple and have not been paid."

Despite this uprising, which clearly showed the need for an effective police system in the Potteries, progress was slow. The old watchmen continued in their duties. An average wage for these watchmen was about 12s. a week and their hours mainly from 10 p.m. to 5 a.m., after which they were usually at liberty to find other employment. One of the best remembered of these men was Samuel Swann, who was a watchman during the riots of 1842. He served with the old watch for five years and when it was disbanded joined the County Constabulary being the only one of the Hanley watchmen to be accepted. He resigned from this in 1853 and became a servant of the Hanley Corporation as Bellman and Town Crier. He lived to well over eighty.

It is perhaps not out of place to mention at this juncture another Bellman and Town Crier of Hanley, who inspired a local poet to write verse to his memory. He was John Taylor, born in December, 1769, the year in which Josiah Wedgwood opened his works at Etruria. Eighty-eight years later when he died it is recorded that 12,000-15,000 people attended his funeral. Better known as "Tambourine John" he lived in one of three cottages at the Stafford Street end of what later became known as Piccadilly. As late as 1840 these houses had gardens which fronted the Market Square and poplar and lilac trees were to be seen. The cottages were surrounded by wooden palings which Taylor would often white-wash. He was a picturesque figure mounted on a pony and wearing scarlet trousers, a blue coat and white stockings, buckled shoes and a fine gold-braided hat. Musically inclined it was his playing of the tambourine that earned him his "nick-name." He succeeded Job Chatterley as regular bellman and for many years was the "medium of communication between everybody who had anything to vend." It was his wish that he have a grand funeral—and he got it, in February, 1857. It was a public function. "A handsome coffin, on which was laid his hat and sword, followed by a band playing the Dead March from 'Saul' . . . in procession to Shelton churchyard." Here he was committed to the earth by the Rev. C. Wallers, followed by the firing of rifles. John Taylor even penned a two verse inscription, of a gloomy nature, to be cut into the headstone of his grave. The rhyme to his memory was much more jovial and ended in a chorus:

"Oh! John Taylor, your like was seldom seen
Riding on a pony, through the streets of Hanley Green."

At Tunstall, a James Platt was parish constable and market inspector and was in office when Tunstall applied in 1847 to Parliament for an Act for Paving Lighting, Watching, Cleansing, Draining, abating Nuisances and Regulating the Market. At this date, under policing by the County Constabulary (since 1842), for which a rate was levied by the magistrates, it was said that a policeman was seldom seen and that law and order had been very lax since their introduction. Parish constables were

paid by subscription given by the principal inhabitants of the town. James Platt was still giving loyal service in this direction, but Tunstall was paying about £362 a year to the county constabulary rate and the rateable value of the township, in 1847, was £15,825 by a rate of 5½d. in the pound. In exchange for this payment Tunstall received the services of one sub-inspector, at a salary of 23s. a week and two or three constables at from 15s. to 20s. a week. It was obvious that the town had not its fair proportion of the services of the county constabulary. It is interesting to note that at this time Tunstall had no system of draining or public sewers. There was one culvert and that, in the least populous neighbourhood (Sneyd Street) and this took only the surface water off the streets and not drainage from the houses. The Fowlea Brook at the boundary of the township was the natural drain.

The required Act of Parliament was to deal with these matters also. " A great want of power was felt to punish summarily for various annoyances, such as obstructing footpaths, using abusive language in the streets, and the committing of nuisances." Such offences were commonplace and the streets were used as lavatories after dark in both senses of the word by the less responsible of the inhabitants. " Tunstall was a most disorderly place." Ashes were thrown on the footpaths and manure lay in the public streets and these were only partly removed by the rain. The public water supply was very poor and private pumps were generally kept locked, yet such was the scarcity of water that sometimes the locks would be picked and the water supply exhausted.

Mr. T. B. Rose pointed out that there was great jealousy between the county men and the parish constables which prevented their efficient working together and as the parish man received a fee instead of a wage he was sometimes an unscrupulous man who brought charges, without foundation, for his own private gain. One parish constable in Tunstall was actually a notorious poacher, said Mr. Rose. As such men once elected could not be removed for a year some actually laughed at the magistrate who threatened to remove them for bringing false cases to court. At the time of the riots there were regular police forces in Hanley, Burslem, Stoke and Longton, whilst Tunstall had only two constables. The county police of the towns of the Potteries was under Mr. J. H. Sweeting who was chief superintendent and lived at Stoke. For police purposes the Potteries was at this time (1847) divided into three divisions, Stoke, Hanley and Burslem, each being under the direction of a superintendent. Tunstall was a sub-division of the Burslem division and Longton of Stoke. At Stoke a horse and cart was kept for the conveyance of prisoners to Stafford Gaol. Such was crime in the Potteries that 342 prisoners were sent to Stafford in six months, whilst Burslem and Tunstall had 466 persons in custody over a similar period.

Juvenile offenders were common some of them having already been in prison three times and it was prison for most offences. At Longton, in February, 1847, a 12-year-old girl was committed to the assizes for setting fire to a hay-stack at Cocknage. She had done this because she had been refused food by the farmer to whom her mother had sent her to beg. At Longton, John Dean, aged ten, " a lad whose countenance bespeaks something better than his conduct," was charged with vagrancy. He had just come out of gaol after a three-month spell for stealing an apron! This time he was committed to the workhouse for care and protection. Two more boys were

sent to prison with hard labour for stealing coal carried in their aprons from Lord Granville's, Shelton colliery. That better methods of policing the town of Tunstall, and the Potteries in general, were wanted was not doubted and Tunstall pressed ahead to secure the Act of Parliament they desired.

If prison sentences seemed heavy—fines were often likewise. In February, 1849, a fine of £50 was inflicted at the Burslem court on Phoebe Newton, a haggard looking woman, for having an illicit still at her home, and a similar fine on William Seabridge of Hot Lane for the same offence. Illicit distillation was said to be "one of the greatest evils existing in the Potteries." Considerable effort was made to hide them in houses and one was found at Shelton by Superintendent Povey of Burslem and sub-inspectors Fry and Olive of Hanley. The still, concealed by a sliding door in the cellar of a bakehouse attached to the dwelling house of a potter named Levi Calkin, was at "full blast" when found. The copper still containing 136 gallons of wash, 8 gallons of whisky, together with tubs, barrels, lead piping and all the necessary apparatus. A heavy fine was the result.

A lesser offence that caused much annoyance was the offence of "breaking pound." The term is explained by the fact that James Bayley was charged at Longton, in October, 1853, with releasing a mule from the town pound at Longton. The offence was so common that this magistrate made it known that up to three months imprisonment could be awarded.

A notable event in the progress of police matters in the district was the opening of the Longton Court House, on Tuesday, January 1st, 1856. This building, which was demolished in May, 1950, stood on what is now a decorative garden at the corner of Commerce Street and Market Street. The building was historic as it was the Old Town Hall, or Union Town Hall, as it was more frequently designated. By June, 1854, this old building (1814) was found to be in a very decayed state. As accommodation for magistrates at petty sessions had to be found in a room in some inn, it was decided to turn the old building into a court house. The building was the Union Market, formed in 1814 by a company of shareholders at a cost of £2,000 on land given by Messrs. Turner. It comprised a large open square with a spacious market hall also used for public meetings. The building is not to be confused with the market which was built near the church by subscription, in 1789, and which comprised "two squares of stalls for butchers, hucksters, & c." The Union Town Hall was eventually acquired by the Longton Town Council for the modest sum of £750 and turned into a Court House. A portion of the building which comprised the police station and residence was let to the county at a rent which would pay the interest on the outlay that it had occasioned. A public dinner was held in the building to celebrate the opening.

Eight years later, almost to the day, how different was the scene in the Court House. At the conclusion of the ordinary business of the County Court held there the visiting County Court Judge said the room was unhealthy, far too small and noisy, and altogether unfit. He hoped that some arrangement might be made for holding the court elsewhere, otherwise he would apply to the Home Office to get the court removed back to Stoke. The clerk said in reply that it was as large as the Court Room at Hanley, whereupon the judge replied: "Don't introduce Hanley; the Hanley

Court is abominable." In addition he intended asking the Treasury to send down a proper person to inspect it. In the office of the court there was neither gas nor heat. The judge demanded a satisfactory reply from the commissioners, at once, concluding with the remark that: " A more filthy hole than this . . . I have never seen anywhere." Some improvement was made eventually inside. The building continued to be used as a court in various ways almost to its demolition, by which time history was repeating itself when it once more presented a decayed and out-dated aspect both inside and out.

The Longton Court House was followed in February, 1857, by the opening of a new police station at Burslem, in the new Town Hall. A procession, headed by Mr. T. B. Rose, the stipendiary magistrate and Mr. James Macintyre, Chief Bailiff of Burslem, left the George Hotel for the Town Hall where a brief ceremony took place. The new station was within a few yards of Superintendent Povey's house, while the old station was situated at the north end of the Burslem meat market, which was demolished between October and December, 1957.

Since December, 1856, Burslem Board of Health had frequently requested the Lord Chancellor for a separate County Court for Burslem to which they obtained only part satisfaction, for on September 10th, 1858, a letter came from him stating that it was intended that the County Court of the Hanley district should be held alternately at Hanley, Burslem and Tunstall, but that the office of the court would continue to be held at Hanley for the entire district.

The trend in police matters was one of gradual improvement in the district generally. This was borne out by the inspection of the Pottery Constabulary Force on August 26th, 1864, by Major-General Cartwright at Stoke-upon-Trent. There were present 1 chief superintendent, 3 superintendents, 1 inspector, 12 sergeants and 78 constables, a total of 95. The total strength of the Pottery division of the Staffordshire Constabulary was at this date 112, but 11 were absent on duty, and 2 from sickness. There were 4 vacancies. The men were " minutely inspected and put through a variety of marching and other movements." At the conclusion the general said: " I am proud to state my entire approval of the very fine police force of this division . . . I do not know any locality that can show a finer body of men than you have, Mr. Sweeting, under your charge." If the policemen were such worthy men, what of the people of the Potteries? In the following year, 1865, the Commissioners were told that " cock-fighting and other brutal sports are much practised in the district of Fenton." Cock-fights were being arranged at public-houses in the neighbourhood and took place sometimes at four o'clock in the morning. Sometimes when there were cock-fights there were also dog-fights of a brutal character and occasionally the end was a battle between men. Fights were usually held on the boundary of Fenton so that if they were interfered with they simply stepped over into the Trentham parish giving them relief unless police from that area arrived on the scene. Fenton, it was said, lacked sufficient police, especially in view of the payment Fenton made to the Staffordshire Constabulary. Drunkenness had also increased " to a fearful extent of late years " (1869) in Hanley, where there were 245 beer-houses and 52 licensed public-houses. In the previous year (1868) there had been 412 persons

in custody for drunkenness, including 63 women. The Chief Constable's report showed that the Potteries had the evil reputation of being one of the most drunken districts in the kingdom. In the rural districts it was shown that there was one prosecution for drunkenness to every 385 inhabitants and two to every 229 in the mining districts, but in the Potteries the proportion was one to every 104. It was said that indiscriminate licensing by the magistrates, " who often showed favouritism " was partly the fault and it was suggested that the matter ought to have been taken out of their hands and transferred to the excise authorities. About this time there were 19 County Magistrates for the Potteries and Newcastle districts. They included such well known names as William Brownfield of Chatterley House, Hanley (opposite the fire station), Edward Challinor of Manor House, Fenton, W. F. M. Copeland of Cliffe Bank, Stoke, Havard Howard Haywood of Brownhills Villa, J. E. Heathcote of Apedale Hall, E. J. Ridgway of Bank House, Hanley, W. E. Roden of Etruria Hall and E. T. W. Wood of Watlands Hall, Wolstanton. All these mansions have been demolished with the exception of Etruria Hall.

It should be remembered, not without sympathy, that the unfortunate magistrates had to deal with large numbers of applications for licenses. In September, 1869, it was disclosed that in the Stoke police division which included Stoke, Penkhull, Hartshill and Trent Vale, there were 184 beer-houses and 37 public-houses. In the Hanley division of the police which embraced Hanley, Norton-in-the-Moors, Smallthorne, Bucknall and adjacent places, there were 358 beer-houses and 69 public-houses. In the Burslem division which extended over Burslem parish, Tunstall, Silverdale, Chesterton, Kidsgrove, Goldenhill, Mowcop, Harrisehead and other places, there were 425 beer-houses and 102 public-houses. In the Longton division, consisting of the borough of Longton with the parish of Caverswall and the townships of Fenton, Normacot, Dresden and Blurton, there were 225 beer-houses and 45 public-houses, making a total of 1,192 beer-houses and 253 public-houses. On this occasion the magistrates sat till seven o'clock at night and adjourned until the following Monday, the list being not more than half finished at that hour! It would seem from this that the magistrates were diligent and conscientious and by November, 1869, it was said of Hanley that Crown Bank, at ten o'clock at night, was as quiet as at three o'clock on Sunday afternoon. A statement at that date said: " Up to within a recent period, the state of Crown Bank, Hanley (an open space in the centre of the town) was, after dark, a scandal and a disgrace. The spirit vaults which thickly stud the border of the square were nightly filled with most abandoned characters—a very rout of Comus—whose discordant shouts, obscene jests, and brutal violence, often made the place a perfect pandemonium. But the salutary lessons of the recent licensing meetings and the evident intention of the police to enforce the law, have changed all that." But matters improved. In September, 1870, the Watch Committee of the Hanley Town Council met " to appoint the superintendent of the borough police force about to be organized." Of the 47 candidates, Mr. Alexander of Newcastle-under-Lyme, was chosen. In addition members of the fire brigade were sworn in to act as special constables when required. Mr. Alexander was followed by Mr. Herbert Windle in 1875, who held the position until 1901, when Mr. Roger Carter was appointed as chief constable

of the Hanley borough police force, becoming Chief Constable of Stoke-on-Trent on Federation in 1910. Mr. Carter died in April, 1936.

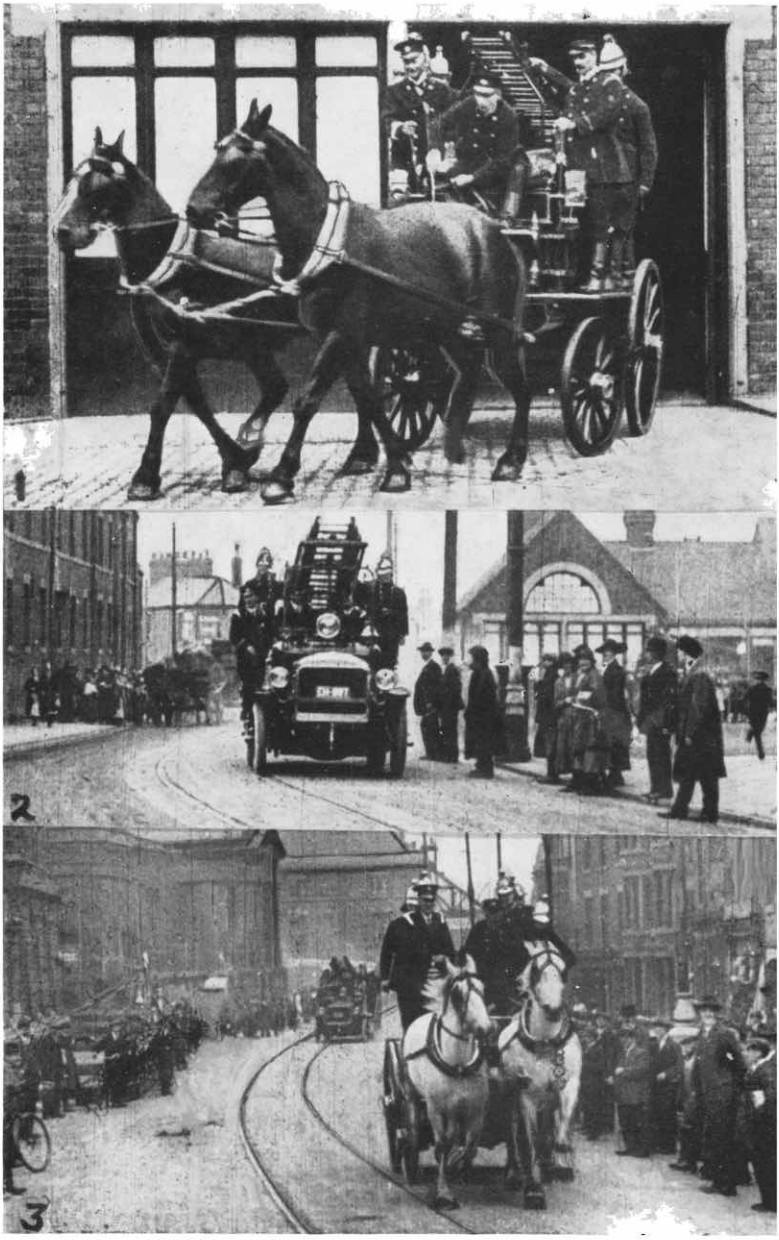
It was due to this establishment of a separate borough police force for Hanley that considerable alterations had to be made with reference to the county police divisions, resulting in Tunstall being constituted a separate division comprising the town of Tunstall, Silverdale, Halmerend, Audley, Bignall End, Chesterton, Talke, Goldenhill, Kidsgrove, Chell, Newchapel, Brindley Ford, Harrisehead and Biddulph. Also several places hitherto in the Hanley division became a portion of the Burslem division, which then comprised the towns of Burslem, Wolstanton, Smallthorne, Norton, Brown Edge, Milton, Bucknall, Bagnall, Washerwall, Cobridge and Sneyd Green, under the direction of Superintendent Povey. These alterations took effect from September 29th, 1870. Members of the new police force lived in a large barracks in Marsh Street, Hanley, with the exception of the chief constable who lived in the Town Hall.

Drunkenness, prostitution, fighting and general disorderliness, though commonplace in the Potteries, were not the only offences and an indignant correspondent to *The Staffordshire Advertiser,* in 1871, writes: " Hanley is at the present time infested with beggars, cadgers and impostors . . . who pursue their calling without the slightest check or interference on the part of the police! A change which is for the worse in this particular took place almost immediately after the appointment of the borough police force . . . . Respectable people have their back premises invaded ten or twelve times a day, but it is the poor who are the greatest sufferers. Very few of them know that the swindlers work upon their feelings with sham blindness, sham lameness, and sham sickness . . . the demure " widow " who stands at the side of the footpath with five or six urchins all hired for the occasion, and trained by brutal threats and often violence to play their parts—the lazy scamps who 'have got no work to do' . . . all live on the fat of the land . . . out of the charity of the poor themselves." Next to this letter in the newspaper is an advertisement stating that the Reverend F. J. Sharr, will lecture at the Mechanics Institution in Hanley on behalf of the Hanley Wesleyan Mutual Improvement Society!

At Tunstall Police Court, in August of the same year (1871), during the hearing of a squabble between two women in Wellington Street, it turned out that one had made an allegation of witchcraft against the other. The accusation in effect was: " The complaintant, who succeeded in getting her antagonist bound over to keep the peace, was publicly told that she bewitched people by getting a number of frogs and toads, sticking pins in them, and placing them in saggars, then getting up at three o'clock in the morning to change the pins!" (Saggars are medium-deep oval trays made of yellow drift marl in which pottery is fired in the oven.) Such was the curious state of law and order in the Pottery towns nearly ninety years ago.

In May, 1871, the Staffordshire Potteries Stipendiary Justice Act Amendment Bill was passed by a committee in the House of Commons with a suggested proviso giving the stipendiary magistrate the same discretionary power as county justices have of appropriating fines and penalties towards the police superannuation fund—a suggestion which was adopted by the promoters.

During those years the only form of transport for the police was the horse—one horse to each division for the use of the superintendent in conjunction with a dog



For information see overleaf

Fire fighting in the Potteries. These rare photographs were enlarged by the author, from a cinema film found in the Ritz Cinema (formerly the Palace Cinema), Burslem, in March, 1956. The film, believed to have been made by amateurs about 1925 bore the title, "A Potteries Girl's Romance." The villain had set fire to a pottery works in which the heroine was trapped —hence the turnout of the Burslem Fire Brigade in the film. Two horse-drawn "steamers" followed by the new motor vehicle turned out for the event.

1. The engines leave the old fire station, then situated at the corner of Baddeley Street, near the top of Scotia Road, Burslem.

2. The new motor engine follows. The old fire station is to the right.

3. The procession races past the Leopard Hotel, Burslem (right) on its way to the "fire." Prior to 1800, insurance companies had their own fire brigades in large towns. They fixed small plaques to insured property which denoted that the owners were covered for fire risks and would receive immediate help from the insurance fire brigade. Municipal fire brigades, in the main, came into operation between the years 1850-60.

cart or trap. Later bicycles were allowed to inspectors and sergeants. Constables were allowed to use them only during the hours of daylight!

Improvement is usually a slow matter and it often passes unnoticed. Nevertheless the twentieth century was approaching and it is interesting to take a further look, in a general way, at the way of life in relation to the police during the last two decades of the nineteenth century. In 1881 we find that Councillor Ringland is making a complaint to the Watch Committee against the Chief Constable who had had the impertinence to send him a summons for an alleged obstruction in Stafford Street. There was much obstruction in the streets of Hanley and all the money spent on the widening of Piccadilly about 1875 had only resulted in the added space being used by tradesmen. "It is almost impossible to go past a butchers' shop without running your head against a sheep's head with blood on it, whilst on Saturday night, Piccadilly is obstructed by street musicians, etc., and completely blocked up." These were minor sidelights on the life in Stoke-upon-Trent, but much more serious was highway robbery, battery and assault which had been going on in the area of Etruria and Basford Bank for many years.

In December, 1881, two gentlemen, returning by cab from the North Staffordshire Licensed Victuallers' Society annual dinner at the Saracen's Head Hotel, Hanley, were violently assaulted as their horse cab was brought to a halt near to the summit of Basford Bank. This was a notorious area and had been even worse twenty years earlier when to walk from Hanley to Newcastle in the small hours after midnight was a hazardous undertaking. There was hardly a house between the old Queen's Head Inn at the top of the bank and Newcastle. The Basford area seemed to be haunted by ill-doers and as though this was not sufficient, a young man named Bates, who had been crossed in love, must need to shoot himself on the Queen's Head bowling green in April, 1894. Even sheep were not secure in the fields nearby, and in 1895, a sheep, owned by Mr. Woodward, butcher of Piccadilly, was actually slaughtered in the field during the hours of darkness, disembowelled, skinned, and its head cut off and left in the field, whilst its carcase was taken away. Robbery of travellers leaving Etruria Station was very common, especially in the Etruria Woods.

The police were at a disadvantage, both in their number and the housing of the culprits when caught. The Hanley police cells in 1883 were described as " dungeons —not free from unpleasant visitors, in the shape of vermin." As these cells in the main town were typical we will examine them more closely. The cells were situated beneath the old Town Hall. The only means of reaching them was by descending steep stone steps with a sharp turn at the foot. When a drunken man was taken down " the police had little opportunity of preventing the unceremonious flight from top to bottom of the unfortunate inebriates who lost their balance." There were five cells in use at this date and the largest and the easiest reached was named the " drunkard's cell " when visited by members of the Watch Committee. There were four inmates, two being men and two boys, who were unable to pay a fine for stone throwing and playing tip cat. They were all huddled together. Although broad daylight their features were barely visible even with the light from the nearest gas burners. The cell in which the four wretches were imprisoned measured 13 feet 10 inches by 10 feet 5 inches. It was 7 feet 6 inches high at the highest part of its arched roof. It

was of white-washed brick with floor " quarries." There were boards for the prisoners to sleep on. The door of the cell opened into a corridor, the opposite side of which was the outside wall facing Upper Fountain Square. Four iron-grated windows, well below street level, could not be opened when the cells were occupied. The worst cell was under almost the centre of the building in which noisy and aggressive prisoners were placed. It received no light but that from the bats-wing gas jet placed some yards away. The use of this and other central cells was discontinued before 1883 owing to the stench arising from them affecting the business of the police courts!

Another considerable annoyance to the townspeople was the removal of handcuffed prisoners from the Hanley Town Hall police cells to the railway station on foot and " deplorable sights were witnessed about mid-day in thoroughfares leading from the police station." This nuisance took a long time to clear up owing to the reluctance of the Watch Committee to pay the necessary cost of the conveyance and it was at least 1886 before this practice ceased. Whether the law breakers of this period deserved better is a matter of opinion. It was an era when the police often suffered at the hands of the offender.

A notorious district of ill repute (about 1900) was West Street, Northwood, otherwise known as " The Rocks." Eastbourne Road was then Fish Pool Walk with a pool and farm. It was an area into which few policemen cared to go singly. One end of this street was the haven of prostitutes and low-class law breakers, whilst the other end in which Police Constable " Bobby " Shenton lived was comparatively respectable and this good policeman was never molested. Mr. Edwin Williams, now living in Northcote Street, Shelton, was an eye-witness to a Sunday afternoon fight in this street between a number of women of doubtful virtue. A policeman, new to the area, happened to be on patrol and followed the screaming girls into a house into which the fight was being continued. Minutes later an extraordinary sight met the eyes of the eager watchers. The sash window of the house of ill-fame was violently thrown up and a naked policeman was unceremoniously bustled through the aperture followed by a shower of uniform, underclothing, boots and helmet.

Bryan Street, Hanley, once so pleasant with its cottages and gardens was as bad, or worse, and after dark it was usual for people to walk in groups of three or more for safety. Those living in this street cared little for the policemen, yet cowered at the sight of the catholic priest whose authority was unquestioned.

Drunkenness was still the cause of much misery, although by 1900 the dreadful conditions of the mid-19th century were much improved and children were not neglected to quite the same extent. A not uncommon case was that of a Longton housewife, in 1900, who was so addicted to drinking beer that her family was completely neglected despite the efforts of her husband who earned 21s. a week. He dared not give this to his wife as she would spend it on drink. An official of the N.S.P.C.C. found the three children aged 13, 11 and 3 years, very dirty. The clothes of the baby were very bad and its boots and clothes sodden with water. On the table were bread crusts. The bedrooms were filthy. On the floor was filth and the stench in the rooms almost unbearable. The police had no alternative but to take action resulting in the wife's imprisonment.

The Hanley N.S.P.C.C. officer gave another case in which the " parties would not

reform . . . The children were found to be in an absolutely filthy condition and they had been turned out of the house to sleep in out-houses or where they could get shelter and they had been found asleep in the streets. Both prisoners were addicted to drink, and but for drink they would probably not be there on such a charge."

Drunken men were often frog-marched by the police to the cells. Mr. Charles H. Tildsley of Marsh Street, Hanley, told me how, in 1899, he saw a drunken woman being taken by wheel barrow from the Antelope Inn to the police station, one policeman pushing and one walking by the side for protection.

Longton police took possession of their new police station, with living quarters, built in 1905, by the County Council in Sutherland Road, Longton, in September, 1906. A red lamp over the main entrance, a new innovation in the district, was a striking feature at night with the words Police Station in letters on the glass of the lantern. The road became known locally as " Handcuff Alley." The new station superseded the old building in Commerce Street (The Court House) which was known to the residents as " The Hole," or alternatively " The Cannon Hotel " relating to the Crimean War cannon within the palisades. The Court House then reverted to the town council and was used for muncipal offices in addition to police courts which were held in the upper part of the building.

Fenton police station was opened in 1914 and that at Stoke in 1897. A new building was opened in Burslem in 1937 after it had been found, in 1934, that large cracks were appearing at the front entrance of the old station near to the meat market due to subsidence. The Sneyd Collieries, which mined the area, agreed to contribute £1,000 towards the new police station. At this time a site in Scotia Road, near the Drill Hall, was suggested for the building of a new station to deal with both Burslem and Tunstall thus doing away with two antiquated police stations. However, the new station was built in the town and Tunstall retained its ancient 100-year-old building in Wesley Street, formerly a farm house, until Wednesday, November 18th, 1959. On this day the Lord Mayor (Alderman Harold Clowes) opened the new police station, built at a cost of £10,000, in Malpass Street, Tunstall, on the site of houses built in 1832 and demolished in 1959.

The advent of Federation of the Six Towns in 1910 brought about many changes in the policing of Stoke-on-Trent.

The Federation Act provided that a separate police force should be established, and that the Hanley force, and such number of the county police as might be determined by the Secretary of State should be transferred. It was however the wish of the Hanley Council that the Hanley police force be extended to cover the whole district, but the remainder of the towns wished that the county should continue to police the areas then under their control and the Hanley force, just the Hanley area. It was explained that such was impossible under the Act and Tunstall, Burslem, Stoke, Fenton and Longton then asked for a consolidation agreement under the County Police Act of 1840 for policing the whole area. This was in February and there was little time to be lost as the Act of Federation stated that a separate police force for the new Borough of Stoke-on-Trent must be established by March 31st, 1910. Further study of the County Police Act indicated that the new police force, which came into being on March 31st, consisting partly of county and partly of Hanley constables,

could be consolidated with the county by resolution of the new council.

The title of the new force was Stoke-on-Trent County Borough Police Force which was changed to Stoke-on-Trent City Police Force in June, 1925, under City Status, conferred by King George V in that month. The new force totalled 251 men under Mr. Roger Carter who had been Chief Constable of Hanley. Mr. Carter gave 35 years service with the police and was the originator of the road safety talks for school children in Stoke-on-Trent. He held the King's Police Medal, the highest honour that could be awarded to a police officer.

Mr. F. L. Bunn, a barrister-at-law, was appointed Chief Constable of Stoke-on-Trent in 1936, retiring in May, 1955. He was awarded the O.B.E. in 1943 and also holds a King's Police Medal.

He was succeeded by Mr. W. E. Watson who took over his duties as Chief Constable on June 1st, 1955.

In March, 1923, the Finney Gardens at Bucknall were made the headquarters of the newly formed Stoke-on-Trent Constabulary Sports Club. The ground is still used for all sporting events by the police, as well as for official inspections. Today the City Police Force like all others is entirely up-to-date.

In November, 1941, the City Council decided that a full-time Coroner should be appointed, and Mr. Gerald W. Huntbach who followed his father in this work, was appointed during that year. He held the position officially until the day previous to his death, on April 1st, 1959, when Mr. F. G. Hails, who was appointed to succeed Mr. Huntbach, held his first inquest on the same day in Hanley.

The efficient, though understaffed City Police Force is today, 1959, hard put to to deal with the considerable increase in crime. Crimes of violence, robbery in the form of breaking and entering premises, and juvenile delinquency are all on the increase, in addition to a host of motoring offences of which there were 3,338 cases in 1958-9. Drunkenness, so prevalent in the district in the 19th century, is much reduced. Mr. W. E. Watson, the Chief Constable, said in 1959: "The City enjoys a very good position with regard to drunkenness, and the percentage of proceedings is the third from lowest among other large industrial areas."

Fire Service

Fire fighting in the Potteries with buckets of water and the old manually worked fire-engines, contrast greatly with the latest modern equipment

One of the earliest manual fire-engines was that made for the Wedgwood Works at Etruria in 1783, by Samuel Phillips, of London. It was capable of throwing a jet of water over the highest buildings of the works. This engine, which still exists, helped to fight the fire which destroyed the Elizabethan mansion, Shelton Old Hall, on the forenoon of Sunday, May 22nd, 1853. Unfortunately, at the time there was a feud between the Etruria and Hanley Fire Brigades which resulted in a pond-water battle between them, with little water reaching the burning house, which was completely gutted! However the blame for this tragedy could not be attributed to this alone. Shortage of water was probably a major factor in the case for in pursuance of a resolution adopted by the Hanley and Shelton Commissioners a public meeting was convened by the Chief Bailiff a few days later to discuss "security against fire at

Hanley." Here the insufficiency of the existing number of fire-plugs in the locality was dwelt upon. Dr. Head, referring to the Shelton Old Hall fire said: " The extent of the conflagration was in no way attributable to the want of fire-plugs, but was solely to the inadequate supply of water throughout the townships on that day." This had been due, said the water-works' company engineer, Mr. Liddle Elliot, to the foundations having been removed for the erection of a new pumping engine at the works. Dr. Head complained of the " lack of water from the water-works for several days before the fire " and said: " The ordinary supply for domestic purposes could not be obtained from the Friday previously to the following Sunday afternoon, I myself having to beg or borrow the commodity." There were other causes. The excited crowd had trampled on the old leather hose pipes, which, together with the pressure of water in them had caused bursts in several places which for a time " baffles the brigade in their exertions." Due to these and other causes the major portion of the Old Hall had been destroyed.

The Hanley Fire Brigade assembled each month for roll call and inspection of its engine. It was this brigade with Superintendent Cole that saved from fire a house still standing opposite to the present fire station in Hanley, namely Chatterley House, notable as the home of the distinguished Lodge family, but which at the time of the fire, in 1864, was occupied by a well known pottery manufacturer, William Brownfield. Servants gave the alarm at 8 o'clock one Sunday morning. Information was sent to the police station. The fire bell was rung and in a short time two engines drawn by horses and the men riding and accompanied by a number of policemen arrived. Directed by Mr. Cole the brigade set to work with the assistance of a number of townspeople. The fire was mastered in about an hour. The recently enlarged dining room at the house was severely damaged, together with a number of oil paintings. The damage estimated at £500 was covered by insurance with the Midland Counties Fire Office.

In 1854, the Burslem Fire Brigade, under Police Superintendent Povey, consisted of 36 men and three engines. Tunstall established their fire brigade two years later, in January, 1856. The brigade was placed in charge of Police Inspector Scott, at a salary of £5 a year.

Burslem, especially, was proud of its fire brigade. In February, 1869, they bought a new fire-engine from Messrs. Merryweather, of London. The older engine, called the " Niagara," was removed to Cobridge to replace the ancient engine then used there. The new engine, christened "Lord of the Manor," was brought to its new home, a building adjoining the police station. Very powerful with all its " modern " appliances and improvements this double acting manual engine was capable of being worked by 24 men, with hoses from either side as required. Large brass lamps, a high seat for the driver, shafts and pole for one or two horses, it made an impressive sight when fully manned. Canvas buckets and new leather and patent-webbing hose were part of the equipment. The whole was emblazoned with the arms of the Burslem Local Board of Health and it was said that Burslem then possessed two fire engines " as good as any town in North Staffordshire." Despite this boast the effort of working the engine exhausted the men and it " proved difficult to sustain by manual power for any lengthened period . . . especially when required for such lofty buildings

as the Town Hall or Wedgwood Institute." In August, 1870, the latest light steam fire engine, made by Messrs. Merryweather, demonstrated its prowess in the Market Place, Burslem, and discharged an enormous volume of water by one or two jets over the highest buildings in the town. The Board purchased the new engine and by good fortune were allowed to return the hand machine. The fire brigade was re-organised and an engineer and stoker appointed. The new engine received her " baptism of fire " at Dimsdale Farm during the year.

In June, 1871, Hanley Town Council purchased a new steam fire engine. The engine, with 400 feet of delivery hose, 16 feet of suction hose, and other appliances, cost £500 with an extra £67 for a fire escape. Drawn by two horses it was capable of throwing a continuous perpendicular stream of water from a one-inch nozzle to the height of 130 feet, 300 gallons per minute being discharged. Two plugs were tapped and the feed tub was kept well supplied, resulting in a fine demonstration in which the Queen's Hotel, now the Town Hall, Hanley, " was deluged with water."

The new engine was soon to be put to a practical test and on a Tuesday morning, early in August, 1871, Superintendent Alexander received information at the police station, Hanley, at 9.24 a.m., that a rick of new hay was on fire opposite the Bottle-slow Arms on the Leek Road. He at once obtained a pair of horses from the stables of Mr. Bradford, lessee of the Potteries Street Railway (horse-drawn trams) and started for the fire with ten constables and the new steam fire engine. On the way Sergeant Lloyd got up steam in 12 minutes, the fire having been previously laid, and on arriving at the hay rick, eight forty-feet lengths of hose were connected together, water being obtained from the River Trent. At 9.52 a.m. action started and the fire was put out within about thirty minutes. The major portion of the seven tons of hay, owned by " Mr. John Worthington, cow-keeper," of Old Hall Street, Hanley, was saved.

Hanley still retained the manual fire engine and after extensive repairs gave a demonstration in the Market Place, Hanley, on Tuesday, October 31st, 1873.

Tunstall followed in May, 1888, when the working of their new steam fire-engine was demonstrated in the Market Square. This engine had been specially finished and exhibited at the Queen Victoria Jubilee Exhibition in Manchester. It was of direct action type, with twist bar motion and capable of delivering 350 gallons a minute, and of throwing a strong stream of water 160 feet high. It was also guaranteed to give a working pressure of 100 lbs. to the square inch, in from eight to ten minutes of lighting the fire! The new brigade consisted of Captain Lee, two engineers and nine men, who gave a demonstration and a stream of water passed over the turret of the Town Hall. Consternation was caused ten years later when a building was gutted by fire. It might have been saved but for the absence of the fire-engine engineer. At the time he was working at Whitfield Colliery and the other firemen, not understanding the machine, were quite helpless. The result was a council meeting to discuss the appointment of a fire-brigade superintendent.

Until 1913 there was no real unity between the six fire-brigades in the Potteries. All fire alarms were made to the police who called out the brigades they considered necessary. Until this date, all the fire steam engines were horse-driven and as the horses were not stabled at the fire-station considerable delays were usual. Calling

out the firemen was slow as they would be, during the day, at their various places of employment. Hanley fire-station was the only one in the district open day and night.

Federation brought about centralisation of the fire-brigades and a break with the police. In September, 1913, Fire Chief Officer Fred Bettany, once Borough Surveyor of Burslem, took over the Hanley Brigade in addition to the rest of the Potteries Brigades already in his charge. At this time Hanley had only one of two fire-engines in workable condition. Some time following a demonstration in Hanley Park of a petrol motor-driven fire-engine a similar machine was purchased for use at the Hanley Station as an experiment and to assist the old " Steamers." In 1913, at the time of central control, Hanley (whose headquarters were at the police station), but whose new premises were to be built at the junction of Percy Street and Tontine Street (they were opened on Saturday, December 3rd, 1921) had one steamer fire-engine drawn by Corporation horses, a fire-escape and an ambulance. There were two fire officers, two engineers, and twenty fire-men. A temporary fire-station was put into operation at the Crown Bank end of the skating rink. The police were no longer called upon to assist at fire-fighting in the district.

At Stoke in 1913 a new fire-station was being built. Fenton had a fairly recently built station, Tunstall and Burslem also had their stations and Longton used a temporary building. Each of the stations had a steamer and similar equipment. In 1913 the total strength of the fire-brigades in the towns of the Potteries was twelve officers, twelve engineers and seventy fire-men. Each fireman received a small retaining fee from the Watch Committee and a payment for work as fire-fighters. Each member was insured by the Corporation with the Royal Insurance Company against death or injury whilst on duty. Taking into consideration income for services at fires the cost of the fire brigades to the rates at this time was about £1,654 against an actual expenditure of £1,246. The men were members of a benefit society and the National Fire Brigades' Union, the Midlands District of which held inter-brigade competitions. Hanley finally became the main station whence all calls were received. The last horse-drawn steam fire-engine ran in 1926. The use of motors with their greater mobility made it possible to close the fire-stations at Tunstall, Stoke and Fenton. Thus in 1926, re-equipped Hanley had two motor units, including 50-feet fire-escapes, hook ladders and life-saving apparatus, also one motor tender and one van for carrying oxygen breathing apparatus. Burslem and Longton had one motor unit at their station. For fire-fighting purposes the City of Stoke-on-Trent was divided into three areas—Hanley, Burslem and Longton. The Hanley staff, in 1928, consisted of a chief officer, second and third officers, two sub-officers and nine permanent firemen with seven " retained " firemen. Burslem and Longton stations each had an officer-in-charge, five permanent and five " retained " firemen.

The houses of all firemen were connected by means of electric call bells. Despite the fact that in 1928 there was no living accommodation for firemen at the Hanley Station the average time for turnout over a period of 24 hours was 2.57 minutes. The effect of the new living accommodation in the upper storeys at the Hanley Station was to reduce the time of turnout to about one minute. In the year 1926, the fire-brigade went to 95 fires and in 1927 to 152 fires. By 1928 there was one factory con-

nected to an automatic fire alarm at the Hanley Station. The telephone number for fire calls was 2222 and no charge was made for calls within the city. Shortly after the beginning of the Second World War in 1939 the City fire-brigade became part of the National Fire Service, a unified body vitally necessary in such a form to deal with the vast fires caused by falling incendiary and high explosive bombs. By the Fire Services Act of 1947, fire-brigades were returned to County and County Borough authorities. Boundaries are now no obstacle where fires are concerned and mutual and immediate aid is available when sought. Chief Fire Officer W. Smith, B.E.M., brought the City Brigade to a very high standard. He records that in one year, 1951, 364 calls were received with 71 special service calls and 59 false alarms—a total of 494 calls in the year. Of these calls 130 were fires in houses and flats.

In his annual report for 1958 Mr. Smith recorded that the public were using the brigade more. In Stoke-on-Trent during 1958, 147 fires were caused by blocked and foul flues and 111 by children playing with naked lights. There were 868 calls on the brigade and on one day no less than 56 calls were received. Thirty-two malicious calls were made during the year. The total strength of the brigade in February, 1959, was 148, including 24 officers, 6 leading fire-men and 69 permanent fire-men.

There are 223 men and 40 women in the Auxiliary Fire Service which has a lecture hall and premises in Town Road, Hanley, built on the site of an old pottery manufactory. Recruitment is increasing this number steadily.

The most recent fire-station is that opened on the Hamil Road, Burslem, on Thursday, May 17th, 1956. This covers the northern end of the city and replaces the older fire-station in Price Street. It had cost £34,704 and is thoroughly up-to-date and makes a great contrast with the original fire-stations and brigades of the six towns of the City of Stoke-on-Trent.

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